SONY

Cyber-shot

Digital Still Camera

Cyber-shot Handbook

DSC-S950

Before operating the unit, please read this Handbook thoroughly together with the ***"Instruction Manual"*** and the ***"Cyber-shot Step-up Guide"***, and retain them for future reference.

▼CLICK!


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4-130-979-**11**(1) GB

Notes on using your camera

Notes on the types of “Memory Stick” media that you can use (sold separately)

“Memory Stick Duo” media

You can use “Memory Stick Duo” media with the camera.



“Memory Stick” media

You cannot use “Memory Stick” media with the camera.



Other memory cards cannot be used.

- For details on “Memory Stick Duo” media, see page 101.

When using “Memory Stick Duo” media with “Memory Stick” media compatible equipment

You can use the “Memory Stick Duo” media by inserting it into the “Memory Stick Duo” media Adaptor (sold separately).



“Memory Stick Duo” media Adaptor

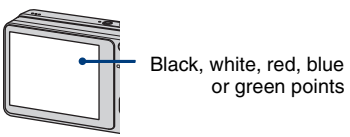
Notes on the battery pack

- Charge the battery pack (supplied) before using the camera for the first time.
- You can charge the battery pack even if it is not completely discharged. In addition, even if the battery pack is not fully charged, you can use the partially charged capacity of the battery pack as is.
- If you do not intend to use the battery pack for a long time, use up the existing charge and remove it from the camera, then store it in a cool, dry place. This is to maintain the battery pack functions.

For details on the usable battery pack, see page 103.

Notes on the LCD screen and lens

- The LCD screen is manufactured using extremely high-precision technology, so over 99.99% of the pixels are operational for effective use. However, some tiny black and/or bright dots (white, red, blue or green) may appear on the LCD screen. These dots are a normal result of the manufacturing process, and do not affect the recording.



- Exposing the LCD screen or the lens to direct sunlight for long periods may cause malfunctions. Be careful when placing the camera near a window or outdoors.
- Do not press against the LCD screen. The screen may be discolored and that may cause a malfunction.
- Images may trail across on the LCD screen in a cold location. This is not a malfunction.
- This camera is equipped with a power zoom lens. Be careful not to bump the lens, and be careful not to apply force to it.

The images used in this Handbook

The images used as examples in this Handbook are reproduced images, and are not actual images shot using the camera.

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Basic techniques for better images

Focus Exposure Color Quality Flash



This section describes the basics so you can enjoy your camera. It tells you how to use various camera functions such as the mode dial (page 20), and the menus (page 34).

Focus — Focusing on a subject successfully

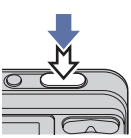
When you press the shutter button halfway down, the camera adjusts the focus automatically (Auto Focus). Remember to press the shutter button only halfway down.

Do not fully press the shutter button straight away.



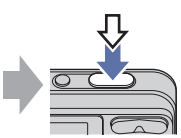
Press the shutter button halfway down.

AE/AF lock indicator flashing ➡ lit/beeps





Then press the shutter button fully down.



When focusing is difficult → [Focus] (page 42)
If the image looks blurred even after focusing, it may be because of camera shake. → See “Hints for preventing blur” on the next page.

Hints for preventing blur

The camera moved accidentally when you took the image. This is called “Camera shake”. On the other hand, if the subject moved when you took the image, it is called “subject blur”.

Camera shake





Cause

Your hands or body shake while you hold the camera and press the shutter button, and the entire screen is blurred.

What you can do to reduce the blurring

- Use a tripod or place the camera on a flat surface to hold the camera steady.
- Shoot with a 2-second delay self-timer and stabilize the camera by holding your arms firmly at your side after pressing the shutter button.

Subject blur





Cause

Even though the camera is steady, the subject moves during the exposure so the subject looks blurred when the shutter button is pressed.

What you can do to reduce the blurring

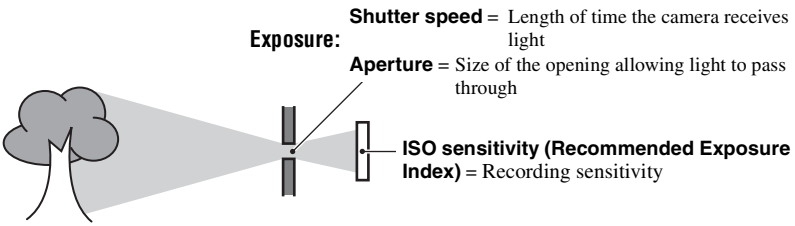
- Select ISO (High Sensitivity) with the mode dial.
- Select a higher ISO sensitivity to make the shutter speed faster, and press the shutter button before the subject moves.

Notes

- When the anti-blur function is set to [Auto], you can reduce the camera shake automatically. However, this is not effective for subject blur.
- Besides, camera shake and subject blur occur frequently under low-light or slow shutter speed conditions, such as those encountered in (Twilight) mode or (Twilight Portrait) mode. In that case, shoot with the above tips in mind.

Exposure *Adjusting the light intensity*

You can create various images by adjusting the exposure and the ISO sensitivity. Exposure is the amount of light that the camera will receive when you release the shutter.





Overexposure
= too much light
Whitish image



Correct exposure



Underexposure
= too little light
Darker image

The exposure is automatically set to the proper value in the auto adjustment mode. However, you can adjust it manually using the functions below.

Adjusting EV:
Allows you to adjust the exposure determined by the camera (page 39).

Metering Mode:
Allows you to change the part of the subject to be measured to determine the exposure (page 41).

Adjusting the ISO sensitivity (Recommended Exposure Index)

ISO sensitivity is a speed rating for recording media that incorporates an image sensor that receives light. Even when the exposure is the same, images differ depending on the ISO sensitivity.
To adjust the ISO sensitivity, see page 40.



High ISO sensitivity
Records a bright image even in dark locations while increasing shutter speed to reduce blur.
However, the image tends to become noisy.



Low ISO sensitivity
Records a smoother image.
However, when the exposure is insufficient, the image may become darker.

Color — On the effects of lighting

The apparent color of the subject is affected by the lighting conditions.

Example: The color of an image affected by light sources

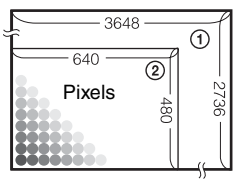
Weather/lighting	Daylight	Cloudy	Fluorescent	Incandescent
Characteristics of light	White (standard) 	Bluish 	Green-tinged 	Reddish 

The color tones are adjusted automatically in the auto adjustment mode.
However, you can adjust color tones manually with [White Balance] (page 44).

Quality — *On “image quality” and “image size”*

A digital image is made up of a collection of small dots called pixels.
If it contains a large number of pixels, the picture becomes large, it takes up more memory, and the image is displayed in fine detail. “Image size” is shown by the number of pixels. Although you cannot see the differences on the screen of the camera, the fine detail and data processing time differ when the image is printed or displayed on a computer screen.

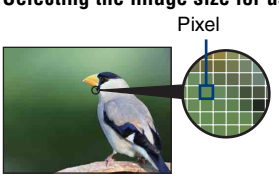
Description of the pixels and the image size



① Image size: 10M
3648 pixels × 2736 pixels = 9,980,928 pixels

② Image size: VGA(E-Mail)
640 pixels × 480 pixels = 307,200 pixels

Selecting the image size for use (page 25)





Many pixels (Fine image quality and large file size)

Example: Printing in up to A3+ size



Few pixels (Rough image quality but small file size)

Example: An attached image to be sent by e-mail

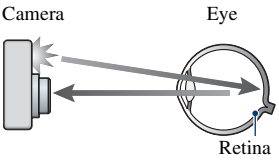
Flash

On using the flash

The eyes of the subject may come out red, or fuzzy white circular spots may appear when using the flash. These phenomena can be reduced by taking the following steps.

The “Red-eye phenomenon”

Pupils become dilated in dark environments. Flash light is reflected off the blood vessels at the back of the eye (retina), causing the “red-eye” phenomenon.



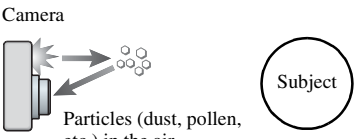


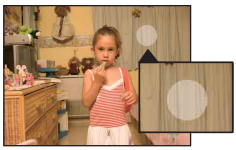
How can the “Red-eye phenomenon” be reduced?

- Set [Red Eye Reduction] to [On] (page 46).
- Select ISO (High Sensitivity) with the mode dial* (page 29). (The flash is turned off automatically.)
- When the eyes of the subject turn out red, correct the image with [Retouch] on the viewing menu (page 50) or with the supplied software “PMB”.

The “White circular spots”

This is caused by particles (dust, pollen, etc.) floating close to the lens. When they are accentuated by the camera’s flash, they appear as white circular spots.





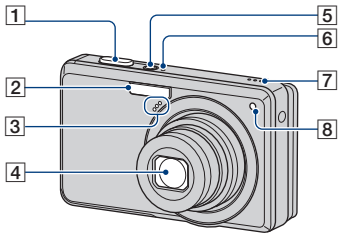
How can the “White circular spots” be reduced?

- Light the room and shoot the subject without a flash.
- Select ISO (High Sensitivity) with the mode dial*. (The flash is turned off automatically.)

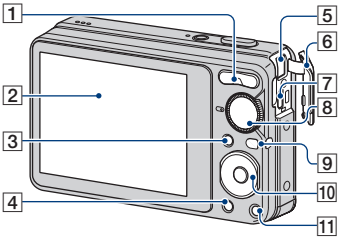
* Even though the mode dial is set to ISO (High Sensitivity), the shutter speed might be slower under low-light conditions, or in a dark place. In that case, use a tripod or hold your arms firmly at your side after pressing the shutter button.

Identifying parts

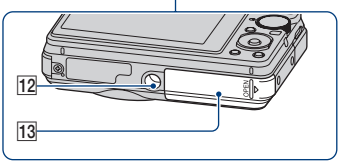
See the pages in parentheses for details of operation.

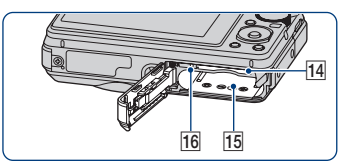


1 Shutter button (21)
2 Flash (23)
3 Microphone
4 Lens
5 ON/OFF (power) button
6 ON/OFF (power) lamp
7 Speaker
8 Self-timer lamp (24)



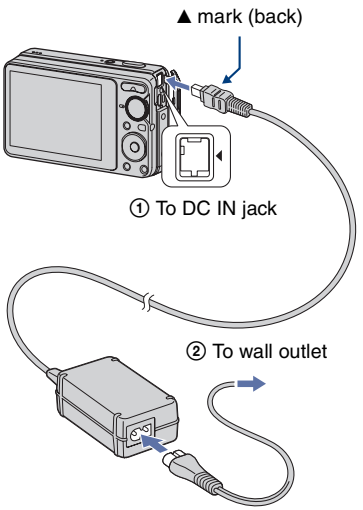
Bottom





1 For shooting: Zoom (W/T) button (22)
For viewing: Q (Playback zoom) button/ (Index) button (30, 31)
2 LCD screen (18)
3 MENU button (34)
4 ▶ (Playback) button (30)

5 DC IN jack
When using an AC-LS5K AC Adaptor (sold separately)



- You cannot charge the battery pack by connecting the camera to the AC-LS5K AC Adaptor. Use the battery charger (supplied) to charge the battery pack.

6 Jack cover

7 •←(USB) · A/V OUT terminal (side)

8 Mode dial (20)

9 Hook for strap

10 Control button

Menu on: ▲/▼/◀/▶/● (34)
Menu off: DISP/ /✿/ϟ (18, 23-24)

11 For shooting: (Image Size) button (25)
For viewing: (Delete) button (32)

12 Tripod receptacle

- Use a tripod with a screw less than 5.5 mm (7/32 inch) long. Otherwise, you cannot firmly secure the camera, and damage to the camera may occur.

13 Battery/“Memory Stick Duo” media cover

14 “Memory Stick Duo” media slot

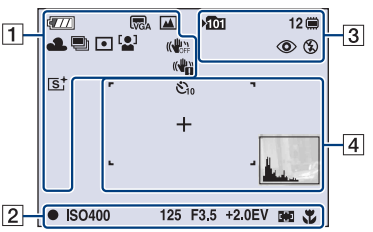
15 Batteries insertion slot

16 Access lamp

Indicators on the screen

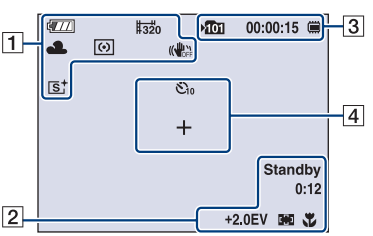
Each time you press ▲ (DISP) on the control button, the display changes (page 18).
See the pages in parentheses for details of operation.

When shooting still images



- The indicators are limited in Easy Shooting mode.

When shooting movies



1

Display	Indication
	Battery remaining
	Low battery warning (97)
10M 5M 3M VGA 3:2 16:9+ 16:9 320	Image size (25)
	Scene Selection (26)
P ISO	Mode dial (20)
WB	White balance (44)
	Burst mode (39)
	Metering mode (41)
	Face detection (38)
ON OFF	SteadyShot (37)
	Vibration warning • Indicates vibration may prevent you from shooting clear images due to insufficient lighting. Even if the vibration warning appears, you can still shoot images. However, we recommend that you set the anti-blur function to [Auto], using the flash for better lighting or using a tripod or other means to stabilize the camera (page 7).
W T ×1.4 S P	Zoom scaling (22, 58)
BW	Color mode (47)

2

Display	Indication
●	AE/AF lock (21)
REC Standby	Recording a movie/Standby a movie
ISO400	ISO number (40)
125	Shutter speed
F3.5	Aperture value
+2.0EV	Exposure Value (39)
0:12	Recording time (minutes : seconds)
	AF range finder frame indicator (42)
1.0 m	Focus preset distance (42)
	Macro (23)

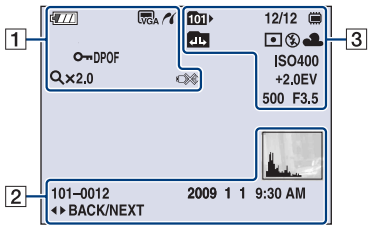
3

Display	Indication
101	Recording folder (60) • This does not appear when using internal memory.
12	Number of recordable images
	Recording Media (“Memory Stick Duo” media, Internal memory)
00:00:15	Recordable time (hours : minutes : seconds)
	Red-eye reduction (46)
SL	Flash mode (23)
	Flash charging

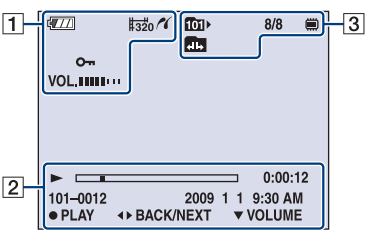
4

Display	Indication
10 2	Self-timer (24)
+	Spot metering cross hair (41)
	AF range finder frame (42)
	Histogram (18)

When playing back still images



When playing back movies



1

Display	Indication
	Battery remaining
	Low battery warning (97)
10M 5M 3M VGA 3:2 16:9+ 16:9 320	Image size (25)
	PictBridge connecting (83)
	Protect (52)
DPOF	Print order (DPOF) mark (85)
×2.0	Zoom scaling (30)
VOL.	Volume (30)
	PictBridge connecting (84) • Do not disconnect the dedicated USB cable while the mark is displayed.

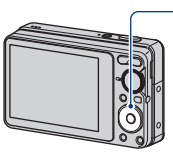
2

Display	Indication
	Playback (30)
	Playback bar
00:00:12	Counter
101-0012	Folder-file number (54)
2009 1 1 9:30 AM	Recorded date/time of the playback image
● STOP ● PLAY	Function guide for playing image
◄► BACK/ NEXT	Selecting images
▼ VOLUME	Adjusting volume
	Histogram (18) • ⊗ appears when histogram display is disabled.

3

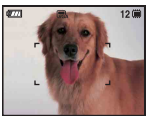
Display	Indication
101-	Playback folder (54) • This does not appear when using internal memory.
8/8 12/12	Image number/Number of images recorded in selected folder
	Playback Media (“Memory Stick Duo” media, Internal memory)
	Changing folder (54) • This does not appear when using internal memory.
	Metering mode (41)
	Flash
AWB	White balance (44)
ISO400	ISO number (40)
+2.0EV	Exposure Value (39)
500	Shutter speed
F3.5	Aperture value

Changing the screen display

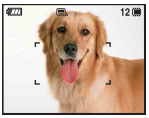


Each time you press ▲ (DISP) on the control button, the display changes as follows:

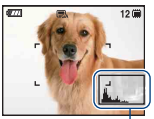
Indicators on



Indicators on*



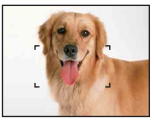
Histogram on*



During playback, the image information is displayed.

Histogram display

Indicators off*



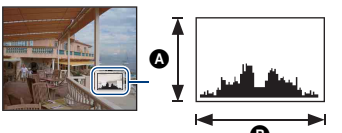
* The brightness of the LCD Backlight up

- If you view images in bright outside light, adjust the brightness of the LCD backlight up. However, the battery power may decrease faster under such condition.
- The histogram does not appear in the following situations:

 While shooting
 - – When the menu is displayed.
 - – When recording movies.

 During playback
 - – When the menu is displayed.
 - – In index mode.
 - – When you are using playback zoom.
 - – When you are rotating still images.
 - – During playback of movies.
- A large difference in the histogram displayed during shooting and playback may occur when:
 - – The flash strobes.
 - – The shutter speed is slow or fast.
- The histogram may not appear for images recorded using other cameras.

Adjusting EV (Exposure Value) by displaying a histogram



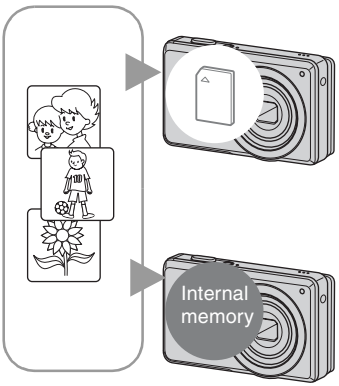
A histogram is a graph showing the brightness of an image. Press ▲ (DISP) on the control button repeatedly to display the histogram on the screen. The graph display indicates a bright image when skewed to the right side, and a dark image when skewed to the left side.

Ⓐ Number of pixels
Ⓑ Brightness

- The histogram also appears when playing back a single image, but you cannot adjust the exposure.

Using the internal memory

The camera has approximately 12 MB of internal memory. This memory is not removable. Even when there is no “Memory Stick Duo” media inserted in the camera, you can record images using this internal memory.



When “Memory Stick Duo” media is inserted

[Recording]: Images are recorded on the “Memory Stick Duo” media.

[Playback]: Images on the “Memory Stick Duo” media are played back.

[Menu, Setup, etc.]: Various functions can be performed on images on the “Memory Stick Duo” media.

When there is no “Memory Stick Duo” media inserted

[Recording]: Images are recorded using the internal memory.

[Playback]: Images stored in the internal memory are played back.

[Menu, Setup, etc.]: Various functions can be performed on images in the internal memory.

On image data stored in the internal memory

We recommend that you copy (back up) data without error using one of the following methods.

To copy (back up) data on “Memory Stick Duo” media

Prepare “Memory Stick Duo” media with sufficient free capacity, then perform the procedure explained in [Copy] (page 61).

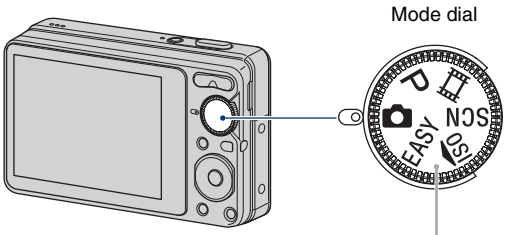
To copy (back up) data on a hard disk of your computer

Perform the procedure on pages 71, 72 or 75, 76 without “Memory Stick Duo” media inserted in the camera.

- You cannot copy image data on “Memory Stick Duo” media to the internal memory.
- By connecting the camera and a computer with a dedicated USB cable, you can copy data stored in the internal memory to a computer. However you cannot copy data on a computer to the internal memory.

Using the mode dial

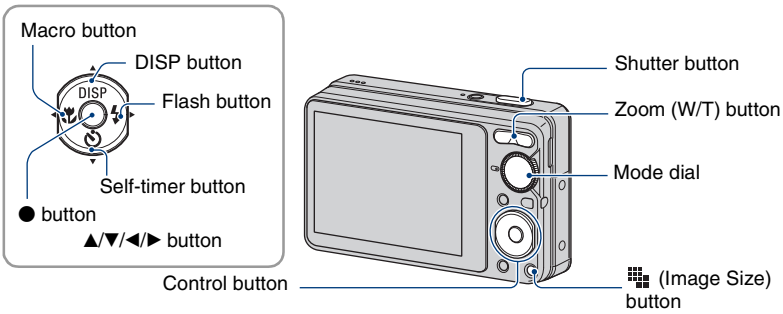
Set the mode dial to the desired function.



:	**Auto Adjustment mode** Allows shooting with the settings adjusted automatically. → page 21
EASY:	**Easy Shooting mode** Allows you to shoot still images using the minimum necessary functions with easy-to-see indicators. → page 22
P :	**Program Auto mode*** Allows you to shoot with the exposure adjusted automatically (both the shutter speed and the aperture value).
:	**Movie Mode** Allows you to record movies. → page 21
SCN:	**Scene Selection mode** Allows you to shoot with preset settings according to the scene. You can select , , , , , in the menu when the mode dial is set to SCN. → page 26
ISO:	**High Sensitivity mode** Allows you to shoot still images with higher ISO sensitivity. → page 29

* You can select various settings using the menu. (For details on the functions available → page 35)

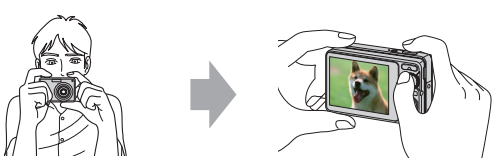
Shooting images (Auto Adjustment mode)



1 Select the desired function from the mode dial.

When shooting still images (Auto Adjustment mode): Select 📷.
When shooting movies: Select 🎞.

2 Hold the camera, with your elbows pressed against your body to steady it.



Position the subject in the center of the focus frame.

3 Shoot with the shutter button.

When shooting still images:

①Press and hold the shutter button halfway down to focus.

The ● (AE/AF lock) indicator (green) flashes, a beep sounds, the indicator stops flashing and remains lit.



AE/AF lock indicator

②Press the shutter button fully down.

When shooting movies:

Press the shutter button fully down.

To stop recording, press the shutter button fully down again.

If you shoot a still image of a subject that is difficult to focus on

- The shortest shooting distance is approximately 5 cm (2 inches) (W)/50 cm (1 feet 7 3/4 inches) (T) (from the front of the lens).
- When the camera cannot focus on the subject automatically, the AE/AF lock indicator changes to flash slowly and the beep does not sound. In addition, the AF range finder frame disappears. Recompose the shot and focus again.

Focusing may be difficult in the following situations:

– It is dark and the subject is distant.
– The contrast between the subject and the background is poor.
– The subject is seen through glass.
– The subject is moving quickly.
– There is reflective light or shiny surfaces.
– The subject is backlit or there is a flashing light.

EASY Shooting in Easy Shooting mode

Set the mode dial to **EASY**.
The text size increases and indicators become easier to see.
The camera shoots images with the optimum settings, so the only settings that you can change are Image Size (Large/Small) (page 36), Flash (Auto/Off) (page 36) and Self-Timer (10 sec/Off) (page 24).

W/T Using the zoom

Press T to zoom, press W to undo the zoom.

- When the zoom scale exceeds 4×, the camera uses the Digital Zoom function.
 For details on the [Digital Zoom] settings and the image quality, see page 58.
- You cannot change the zoom scale while shooting a movie.

Flash (Selecting a flash mode for still images)

Press ► (⚡) on the control button repeatedly until the desired mode is selected.



(No indicator): Flash Auto

Flashes when there is insufficient light or backlight (default setting).

⚡: Flash forced on

⚡SL: Slow synchro (Flash forced on)

The shutter speed is slow in a dark place to clearly shoot the background that is out of flash light.

⊘: Flash forced off

- The flash strobes twice. The first flash adjusts the light quantity.
- While charging the flash, ⚡● is displayed.

Macro (Shooting close-up)

Press ◄ (🌷) on the control button repeatedly until the desired mode is selected.



(No indicator): Auto

The camera adjusts the focus automatically from distant subjects to close-up.

Normally, put the camera in this mode.

🌷: Macro

The camera adjusts the focus with priority on close-up subjects.

Set Macro On when shooting close subjects.

- The Auto Focus speed drops when you shoot images in the Macro.
- Setting the zoom all the way to the W side is recommended.

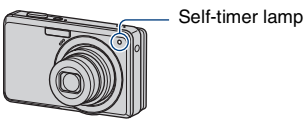
Using the self-timer

Press ▼ (⏲) on the control button repeatedly until the desired mode is selected.



(No indicator): Not using the self-timer
⏲10 : Setting the 10-second delay self-timer
⏲2 : Setting the 2-second delay self-timer

When you press the shutter button, the self-timer lamp flashes and a beep sounds until the shutter operates.



To cancel, press ▼ (⏲) again.

- Use the 2-second delay self-timer to prevent blur of an image. The shutter is released 2 seconds after you press the shutter button, which reduces camera shake when the shutter button is pressed.
- In Easy Shooting mode, you can select only ⏲ON (10 sec) or ⏲OFF (Off).

To change the still image size

Press (Image Size), and then press ◀/▶ to select the size.
For details on the image size, see page 10.
The default setting is marked with ✓.

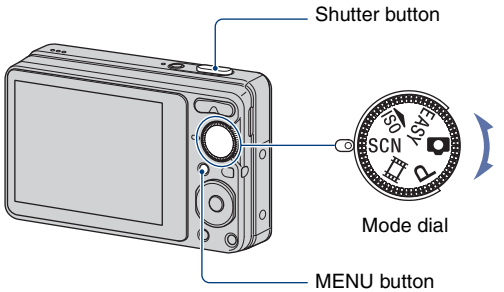
For still images

	Image size	Usage guidelines	No. of images	Printing
✓	10M (3648×2736)	For prints up to A3+(13×19")	Less	Fine
	3:2 (8M)*1 (3648×2432)	Shoot in 3:2 aspect ratio		
	5M (2592×1944)	For prints up to A4(8×10")		
	3M (2048×1536)	For prints up to 10×15 cm (4×6") or 13×18 cm(5×7")		
	VGA (640×480)	Shoot at small image size for e-mail attachments	More	Rough
	16:9 (7M)*2 (3648×2056)	For viewing on HDTVs and printing up to A4(8×10")	Less	Fine
	16:9 (2M)*2 (1920×1080)	For viewing on HDTVs	More	Rough

*1) Images are recorded in 3:2 aspect ratio, same as photograph printing paper or postcards, etc.
*2) Both edges of the image may be cut off when printing (page 94).

For movie
The image size of a movie is fixed to 320 × 240.

Shooting still images (Scene Selection mode)



1 **Select SCN with the mode dial.**

2 **Press the MENU button, and select from /////// with ▲/▼/◄/► on the control button (page 36).**

3 **Shoot with the shutter button.**

• For details on modes, see the next page.

To cancel the Scene Selection

Set the mode dial to anything other than the SCN.

Scene Selection modes

The following modes are preset to match the scene conditions.



Soft Snap

Allows you to shoot skin colors in brighter and warmer tones for more beautiful pictures. In addition, the soft focus effect creates a gentle atmosphere for portraits of people, flowers, etc.



Landscape

Focuses only on a distant subject to shoot landscapes, etc.



Twilight Portrait*

Allows you to shoot sharp images of people with the night view in the background without compromising the atmosphere.



Twilight*

Allows you to shoot night scenes at far distance without losing the dark atmosphere of the surroundings.



Beach

When shooting seaside or lakeside scenes, the blue of the water is clearly recorded.



Snow

When shooting snowy scenes or other places where the whole screen appears white, use this mode to prevent sunken colors and record clear images.

* When you shoot images using (Twilight Portrait) or (Twilight) mode, the shutter speed becomes slower, and blurring is occur frequently, so use of a tripod is recommended.

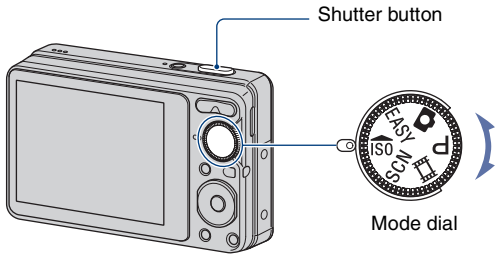
Functions you can use in Scene Selection

For shooting an image appropriately according to the scene condition, a combination of functions is determined by the camera. Some functions are not available, depending on the Scene Selection mode.

(✓: you can select the desired setting)

	Macro	Flash	Face Detection	Burst	Red Eye Reduction
	✓	✓	—	✓	✓
	—	⚡ / ⊘	—	✓	✓
	✓	⚡SL	✓	—	✓
	—	⊘	—	—	—
	✓	⚡ / ⊘	✓	✓	✓
	✓	⚡ / ⊘	✓	✓	✓

Shooting still images (High Sensitivity mode)



1 **Select ISO with the mode dial.**

2 **Shoot with the shutter button.**

High Sensitivity mode

Allows you to shoot images without a flash under low light conditions, reducing blur.

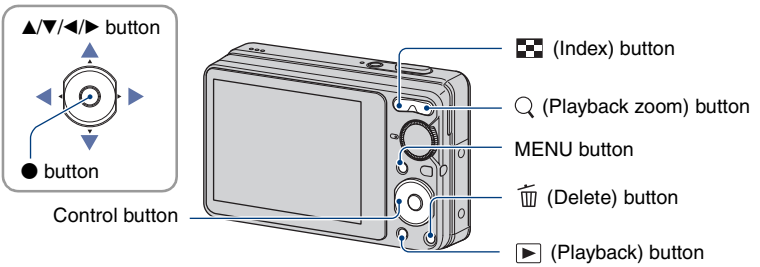


• The flash is set to (Flash forced off).

To cancel the High Sensitivity

Set the mode dial to anything other than ISO.

Viewing images



1 Press the ▶ (Playback) button.

- If you press the ▶ (Playback) button when the camera is powered off, the camera is turned on automatically and set to playback mode. To switch to the shooting mode, press the ▶ (Playback) button again.

2 Select an image with ◀/▶ on the control button.

Movie:

Press ● to play back a movie. (Press ● again to stop playback.)

Press ▶ to fast forward, ◀ to rewind. (Press ● to return to normal playback.)

Press ▼ to display the volume control screen, then press ◀/▶ to adjust the volume.

To view an enlarged image (playback zoom)

Press (T) while displaying a still image. To undo the zoom, press W.
Adjust the portion with ▲/▼/◀/▶.
To cancel the playback zoom, press ●.

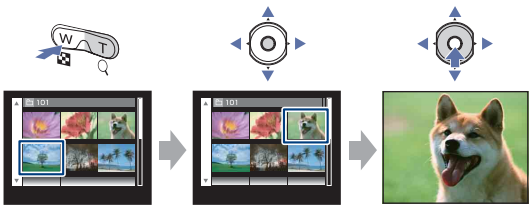


Shows the displayed area of the whole image.
In this case, the center is enlarged.

- To store enlarged images, see [Trimming] (page 50).

To view an index screen

Press (Index) to display the index screen while a still image is displayed.
Select an image with ▲/▼/◀/▶.
To return to the single image screen, press ●.

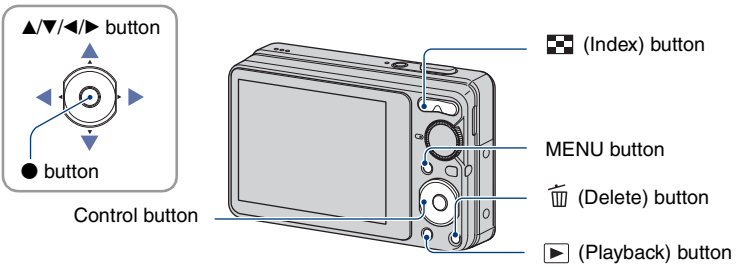


- Each time you press (Index), the number of images on the index screen increases.
- When using “Memory Stick Duo” media, you can select the desired date/folder with ▲/▼ after selecting the bar with ◀.



Bar

Deleting images



1 **Press the (Playback) button.**

2 **Press the (Delete) button while displaying in single-image or index mode.**

3 **Select the desired deletion method with ◀/▶ from among [This Image], [Multiple Images] and [All In This Folder], then press ●.**

When you select [This Image]

You can delete the selected image.
Select [OK] with ▲, then press ●.

When you select [Multiple Images]

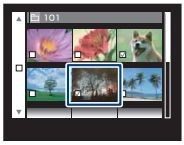
You can select and delete multiple images simultaneously.

① Select the images you want to delete, then press ●.
The ✓ mark is checked in the check box of the image.

Single Image



Index Display



② Press the MENU button.

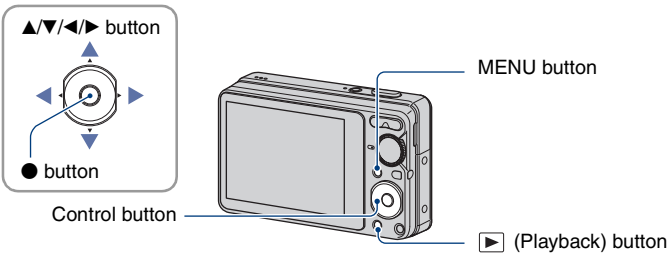
③ Select [OK] with ▲, then press ●.

• To delete all the images of a folder, select [Multiple Images] on the index screen, select the bar with ◀ and place a ✓ mark in the check box.

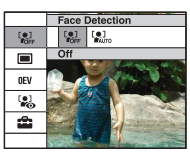
When you select [All In This Folder]

You can delete all the images of the selected folder.
Select [OK] with ▲, then press ●.

Using menu items



1 Press the MENU button to display the menu.

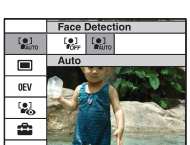


- The menu will be displayed only during shooting and playback mode.
- Different items will become visible depending on the selected mode.

2 Select a desired menu item with ▲/▼ on the control button.

- If the desired item is hidden, keep pressing ▲/▼ until the item appears on the screen.

3 Select a setting with ◄/►.



- If the desired setting is hidden, keep pressing ◄/► until the setting appears on the screen.
- Select an item in playback mode, and press ●.

4 Press the MENU button to turn off the menu.

Menu items

For details on the operation ☞ page 34

The available menu items vary depending on the mode setting (shooting/viewing), and the mode dial position in the shooting mode. Only the available items are displayed on the screen.

(✓ : available)

Mode dial position:		EASY	P	ISO	SCN	
Shooting menu (page 36)						
Scene Selection	—	—	—	—	✓	—
Image Size	—	✓	—	—	—	—
Flash	—	✓	—	—	—	—
SteadyShot	✓	—	✓	✓	✓	—
Face Detection	✓	—	✓	✓	✓*	—
REC Mode	✓	—	✓	—	✓*	—
EV	✓	—	✓	✓	✓	✓
ISO	—	—	✓	—	—	—
Metering Mode	—	—	✓	—	—	✓
Focus	—	—	✓	—	—	—
White Balance	—	—	✓	✓	—	✓
Flash Level	—	—	✓	—	—	—
Red Eye Reduction	✓	—	✓	—	✓*	—
Color Mode	—	—	✓	—	—	✓
(Setup)	✓	—	✓	✓	✓	✓

* The operation is limited according to the selected Scene Selection mode (page 28).

Viewing menu (page 48)

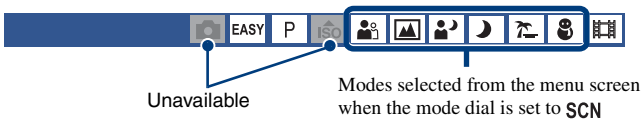
(Slideshow)
(Multi-Purpose Resize)
DPOF
(Rotate)
(Setup)
(Retouch)
(Protect)
(Print)
(Select Folder)

Shooting menu

For details on the operation ☞ page 34

The functions in shooting mode using MENU are described below.
For details on how to operate the menu, see page 34.

The selectable mode is displayed in white.



The default settings are marked with ✓.

Scene Selection: Selecting the Scene Selection

Selects the Scene Selection in the menu.
You can shoot images with the settings pre-adjusted to match various scene conditions page 26.

Image Size: Selecting the Image Size

Selects the still image size for Easy Shooting mode.

✓	Large	Shoots images in [10M] size.
	Small	Shoots images in [3M] size.

Flash: Flash setting

Selects the flash setting in Easy Shooting mode.

✓	Auto	Flash strobes when there is insufficient light or backlight.
	Off	Does not use the flash.

For details on the operation ☞ page 34

SteadyShot: Selecting the anti-blur mode

Selects the anti-blur mode.

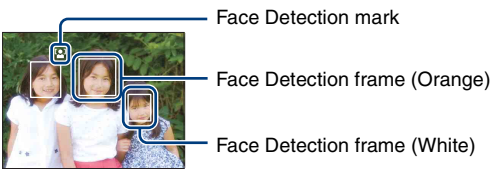
	(Auto)	Activates the anti-blur function automatically when shooting conditions are likely to cause camera shake. You can stabilize images even when zooming up a far subject.
✓	(Off)	Does not use anti-blur mode.

- In Easy Shooting mode, [SteadyShot] is set to [Off].
- The anti-blur function may not work properly in the following cases.
 - When camera shake is too strong.
 - When the shutter speed is slow, for example, shooting night scenes.
- Time is required for image processing.
- When shooting with a flash, the anti-blur function does not work.

For details on the operation ☞ page 34

Face Detection: Detecting the face of subject

Selects whether to use the Face Detection function or not.
Detects the faces of your subjects and adjusts the focus, flash, exposure, white balance and red-eye reduction settings automatically.

	(Off)	Does not use Face Detection function.
✓	(Auto)	The camera selects a face to focus on automatically. 

- The Face Detection function does not work when using the digital zoom.
- When the Scene Selection mode is set to (Soft Snap) mode, the Face Detection function is activated.
- Although [Face Detection] is fixed to [Auto] when Easy Shooting mode is selected, no face detection frames are displayed.
- Up to 8 faces of your subjects can be detected. However, only up to 4 faces of your subjects can be detected when (Soft Snap) mode is selected in the Scene Selection mode.
- When the camera detects more than one subject, the camera will judge which is the main subject and set focus by priority. The Face Detection frame for the main subject will turn orange.
- The frame for which the focus is set will turn green by pressing the shutter button halfway down.
- Faces may not be detected correctly when:
 - It is too dark or too bright.
 - Faces are partially hidden by sunglasses, masks, hats, etc.
 - The subjects are not facing the camera.

For details on the operation ☞ page 34

REC Mode: Selecting the continuous shooting method

Selects whether the camera performs continuous shooting or not when you press the shutter button.

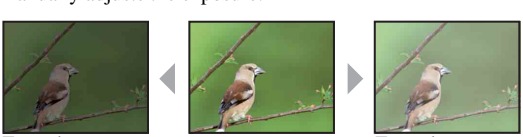
✓	(Normal)	Does not shoot continuously.
	(Burst)	Records 100 images in succession when you press and hold down the shutter button.  • The flash is set to (Flash forced off).

On the Burst

- When recording with the self timer, a series of a maximum of five images is recorded.
- When the battery level is low, or when the internal memory or "Memory Stick Duo" media is full, the Burst stops.
- The focus, white balance, and exposure are adjusted for the first image, and these settings are also used for the other images.

EV: Adjusting the light intensity

Manually adjusts the exposure.



Toward – Toward +

	–2.0EV	Toward –: Darkens an image.
✓	0EV	The exposure is determined automatically by the camera.
	+2.0EV	Toward +: Brightens an image.

- For details on the exposure, see page 8.
- The compensation value can be set in 1/3EV increments.
- If you shoot a subject in extremely bright or dark conditions, or when you use the flash, the exposure adjustment may not be effective.

For details on the operation ☞ page 34

ISO: Selecting a luminous sensitivity

Selects the ISO sensitivity.



Low ISO sensitivity





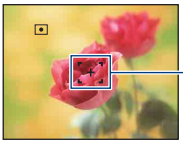
High ISO sensitivity

✓	ISO AUTO (Auto)	You can reduce image blurring in dark locations or moving subjects by increasing ISO sensitivity (select a larger number). However, images tend to become noisier as the ISO sensitivity number increases. Select an ISO sensitivity number according to shooting conditions.
	ISO 100	
	ISO 200	
	ISO 400	
	ISO 800	
	ISO 1600	
	ISO 3200	

- For details on the ISO sensitivity, see page 8.
- You can select only from [ISO AUTO], [ISO 100] to [ISO 400] when set to Burst.

Metering Mode: Selecting the Metering mode

Selects the metering mode that sets which part of the subject to measure to determine the exposure.

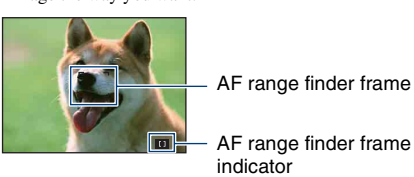
✓	(Multi)	Divides into multiple regions and measures each region. The camera determines a well-balanced exposure (Multi-pattern metering).
	(Center)	Measures the center of the image, and determines the exposure based on the brightness of the subject there (Center-weighted metering).
	(Spot) (Only for still image)	Measures only a part of the subject (Spot metering). • This function is useful when the subject is backlit or when there is strong contrast between the subject and the background.  Spot metering cross hairs Positions on the subject

- For details on the exposure, see page 8.
- When using spot metering or center-weighted metering, setting [Focus] to [Center AF] is recommended to focus on the metering position (page 42).
- You can select the metering mode only when [Face Detection] is set to [Off].

For details on the operation ☞ page 34

Focus: Changing the Focus method

You can change the focus method. Use the menu when it is difficult to get the proper focus in auto focus mode.

✓	(Multi AF)	Focuses on a subject in all ranges of the finder frame automatically. • This mode is useful when the subject is not in the center of the frame. 
	(Center AF)	Focuses on a subject in the center of the finder frame automatically. • Using the AF lock function together, you can compose the image the way you want. 
	0.5 m	Automatically focuses quickly on the area around a previously set distance (Focus preset). • Focuses on a subject in all ranges of the finder frame in Focus preset mode. • This mode is useful when repeatedly shooting a subject at the same distance. • This mode is useful when it is difficult to get sharp focus with automatic focusing, such as when shooting a subject through a net or window.
	1.0 m	
	3.0 m	
	7.0 m	
	∞ (unlimited distance)	

- AF stands for Auto Focus.
- When you use Digital Zoom, the AF range finder frame is disabled and appears in a dotted line. In this case, the camera works to focus on the subjects at the center of the screen.
- You can change the focus method only when [Face Detection] is set to [Off].
- You can select only [Multi AF] when shooting movies.
- The Focus preset distance setting contains some errors, and this error increases when the zoom is set to the T side or the lens is tilted upward or downward.

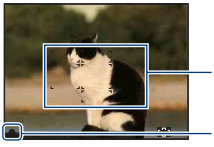
If the subject is out of focus

When shooting with the subject at the edge of the frame (or the screen) or when using [Center AF], the camera may not focus on a subject at the edge of the frame.



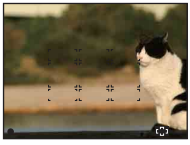
In such cases, do as follows:

① Recompose the shot so that the subject is centered in the AF range finder, and press the shutter button halfway down to focus on the subject (AF lock).



As long as you do not press the shutter button fully down, you can retry the procedure as many times as you want.

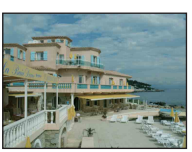
② When the AE/AF lock indicator stops flashing and remains on, return to the fully composed shot, and press the shutter button fully down.



For details on the operation ☞ page 34

White Balance: Adjusting the color tones

Adjusts color tones according to the surrounding light conditions. Use this function if image color appears unnatural.

✓		
✓	WB AUTO (Auto)	Adjusts the White Balance automatically.
	☀ (Daylight)	Adjusts for conditions outside under a clear sky, at sundown, night scenes, the presence of neon signs or fireworks. 
	☁ (Cloudy)	Adjusts for a cloudy sky or a shady location. 
	(Fluorescent Light 1)/ (Fluorescent Light 2)/ (Fluorescent Light 3)	[Fluorescent Light 1]: Adjusts for white fluorescent lighting. [Fluorescent Light 2]: Adjusts for natural white fluorescent lighting. [Fluorescent Light 3]: Adjusts for day white fluorescent lighting. 
	(Incandescent)	Adjusts for places under an incandescent lamp, or under bright lighting, such as in a photo studio. 

	WB (Flash)	Adjusts for the flash conditions. • You cannot select this item when shooting movies or when ISO (High Sensitivity) is selected with the mode dial. 

- For details on the white balance, see page 9.
- Under fluorescent lights that flicker, the white balance function may not work correctly even though you select [Fluorescent Light 1], [Fluorescent Light 2] or [Fluorescent Light 3].
- When shooting with a flash in other than [Flash] mode, [White Balance] is set to [Auto].

Flash Level: Adjusting the amount of flash light

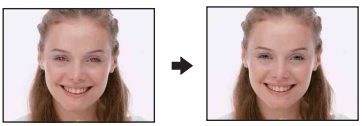
Adjusts the amount of flash light.

	(−)	Makes the flash level lower.
✓	STD (Normal)	
	(+)	Makes the flash level higher.

- To change flash mode, see page 23.
- If the subject is too bright or dark, this adjustment may have no effect.

For details on the operation ☞ page 34

Red Eye Reduction: Setting the Red Eye Reduction function



The flash strobes two or more times before shooting to reduce the red-eye phenomenon when using the flash.

✓	(Auto)	When the Face Detection function is activated, the flash strobes automatically to reduce the red-eye phenomenon.
	(On)	The flash always strobes to reduce the red-eye phenomenon.
	(Off)	Does not use Red Eye Reduction.

- To avoid blurring of images, hold the camera firmly until the shutter is released. It usually takes a second after you press the shutter button. Be also sure not to allow the subject to move during this period.
- Red-eye reduction may not produce the desired effects. It depends on individual differences and conditions, such as distance to the subject, or if the subject looked away from the pre-strobe. In such a case, you can correct the red-eye using [Retouch] in the viewing menu after shooting (page 50).
- When the Face Detection function is not used, the flash will not strobe to reduce red-eye phenomenon even when [Auto] is selected.

Color Mode: Changing the vividness of the image or adding special effects

You can change the brightness of the image, accompanied by effects.

✓	(Normal)	Sets the image to standard color. 
	(Sepia)	Sets the image to sepia color. 
	(B & W)	Sets the image to black and white. 

(Setup): Changing Setup items

See page 55.

For details on the operation ☞ page 34

The default settings are marked with ✓.

(Slideshow): Playing back a series of images

Plays back recorded images in order (Slideshow).

Image This setting is fixed to [Folder] if “Memory Stick Duo” media (sold separately) is not inserted.		
✓	All	Plays back all the still images in order.
	Folder	Plays back the still images in the selected folder.

Effects		
	Simple	A simple slideshow switching still images at a preset interval • The playback interval is adjustable. This effect allows you to enjoy your images at your own set pace.
✓	Basic	A basic slideshow suitable for a wide range of scenes

Other Settings		
Interval		
	1 sec	Sets the display interval of images for a [Simple] slideshow.
	3 sec	
	5 sec	
	10 sec	
✓	Auto	The interval is set to suit [Basic] slideshow.
Repeat		
✓	On	Plays back images in a continuous loop.
	Off	After all the images have been played back, the slideshow ends.

For details on the operation ☞ page 34

	Start	See the following procedure.
✓	Exit	Cancels the slideshow.

① Select [Image], [Effects], [Interval] and [Repeat] with ▲/▼/◀/▶ on the control button.

② Select [Start] with ▲, then press ●.
The slideshow starts.

To end the slideshow

Press ●.

• You cannot pause the slideshow.

For details on the operation ☞ page 34

(Retouch): Retouching still images

Adds effects or makes corrections to a recorded image and records it as a new file. The original image is retained.

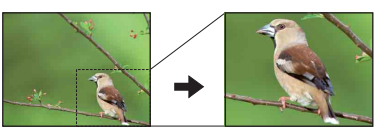
To retouch the still images

① Select the images you want to retouch while displaying in single-image.

② Press the MENU button.

③ Select [Retouch] with ▲/▼ on the control button, then press ● after selecting the desired mode with ◀/▶.

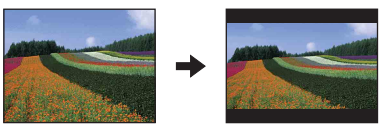
④ Retouch the images following the instructions for each retouching mode below.

(Trimming)	Playback zoom is performed on the image and part of the image is cropped.  ① Press W/T to zoom in on the trimming range. ② Set the point with ▲/▼/◀/▶, then press the MENU button. ③ Select [Image Size] with ▲/▼, then press ●. Select an image size to record with ▲/▼, then press ● again. ④ Select [OK] with ▲/▼, then press ●. • The image size that you can trim may vary depending on the image. • The quality of trimmed images may deteriorate.
(Red Eye Correction)	Corrects the red-eye phenomenon caused by flash.  Select [OK] with ▲/▼, then press ●. • You may not be able to correct the red-eye phenomenon depending on the image.

For details on the operation ☞ page 34

(Multi-Purpose Resize): Changing the image size according to usage

You can change the aspect ratio and size of the shooting images, then record them as the new files.
You can convert images to the 16:9 aspect ratio for high definition viewing and to the VGA size for blog or e-mail attachments.

(HDTV)	Changes the aspect ratio from 4:3/3:2 to 16:9 and saves as 2M size. 
(Blog/E-mail)	Changes the aspect ratio from 16:9/3:2 to 4:3 and saves as VGA size. 

① Select the images you want to retouch while displaying in single-image.

② Press the MENU button.

③ Select the [Multi-Purpose Resize] with ▲/▼ on the control button, then press ● after selecting the desired size of the image with ◀/▶.

④ Press W/T to zoom in from the area you want to trim.

⑤ Set the point with ▲/▼/◀/▶, then press the MENU button.

⑥ Select [OK] with ▲, then press ●.

- For details about the image size, see page 25.
- You cannot resize movies.
- You cannot resize the images from VGA to [HDTV].
- Enlarging the image and multi resizing can reduce the image quality.

(Protect): Preventing accidental erasure

Protects images against accidental erasure. The (Protect) indicator appears on a protected image.

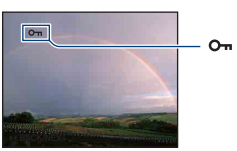
(This Image)	Protects/unlocks the currently selected image. • This item appears only in single-image mode.
(Multiple Images)	Selects and protects/unlocks multiple images.

To protect an image

① Select the images you want to protect while displaying images in single-image mode.

② Press the MENU button.

③ Select [Protect] with ▲/▼ on the control button, [This Image] with ◀/▶, and then press ●.



To select and protect images

① Press the MENU button while displaying images in single-image mode or in index mode.

② Select [Protect] with ▲/▼, and select [Multiple Images] with ◀/▶, then press ●.

In single-image mode:

③ Select the image you want to protect with ◀/▶, then press ●.
The ✓ is attached to the selected image.

④ Press ◀/▶ to display other images you want to protect, then press ●.

⑤ Press the MENU button.

⑥ Select [OK] with ▲, then press ●.

In index mode:

③ Select the image you want to protect with ▲/▼/◀/▶, then press ●.
The ✓ is attached to the selected image.

④ To protect other images, repeat step ③.
To select all the images of a date/folder/favorites, select the bar with ◀, then press ●.

⑤ Press the MENU button.

⑥ Select [OK] with ▲, then press ●.

• Note that the formatting erases all the data stored on the recording media, even if the images are protected, and these images cannot be restored.
• It may take some time to protect an image.

To cancel the protection

Select the image for which you want to cancel protection, and unlock it by taking the same steps as in “To select and protect images”.
The (Protect) indicator disappears.

DPOF : Adding a Print order mark

Adds a print order mark (DPOF) to the image you want to print.
See page 85.

(Print): Printing images using a printer

Printing images shot with the camera.
See page 82.

(Rotate): Rotating a still image



Rotates a still image.

① Display the image to be rotated.
② Press the MENU button to display the menu.
③ Select [Rotate] with ▲/▼ on the control button, then press ●.
④ Select [↶ ↷], then rotate the image with ◀/▶.
⑤ Select [OK] with ▲/▼, then press ●.

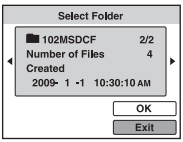
- You cannot rotate protected images or movies.
- You may not be able to rotate images shot with other cameras.
- When viewing images on a computer, the image rotation information may not be reflected depending on the software.

For details on the operation ☞ page 34

(Select Folder): Selecting the folder for viewing images

Selects the folder containing the image you want to play back.

① Select the desired folder with ◀/▶ on the control button.



② Select [OK] with ▲, then press ●.

To cancel selecting the folder

Select [Exit] in step ②, then press ●.

On the folders

The camera stores images in a specified folder of "Memory Stick Duo" media. You can change the folder or create a new one.

- To create a new folder → [Create REC.Folder] (page 60)
- To change the folder for recording images → [Change REC.Folder] (page 61)
- When multiple folders are created in the "Memory Stick Duo" media and the first or last image in the folder is displayed, the following indicators appear.

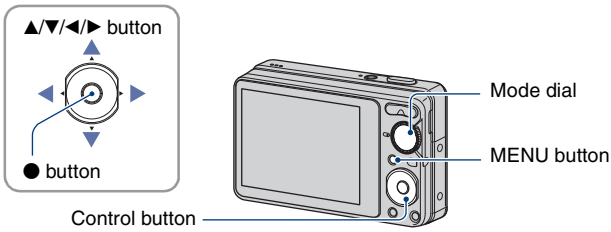
: Moves to the previous folder.
: Moves to the next folder.
: Moves to either the previous or next folders.

(Setup): Changing Setup items

See page 55.

Using Setup items

You can change the default settings using the Setup screen.

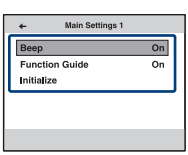


1 Press the MENU button to display the MENU screen.

2 After pressing ▼ on the control button, go to the (Setup) setting, then press ●.

3 Press ▲/▼/◄/► on the control button to select the item you want to set.

4 Press ● to enter the setting.



To turn off the (Setup) screen, press the MENU button.
To return to the menu from the (Setup) screen, press ◄ on the control button repeatedly.

• Press the shutter button halfway down to close the (Setup) screen and return to the shooting mode.

To cancel the (Setup) setting

Select [Cancel] if it appears, then press ● on the control button. If it does not appear, select the previous setting again.

• This setting is maintained even when the power is turned off.

Main Settings — Main Settings 1

For details on the operation ☞ page 55

The default settings are marked with ✓.

Beep

Selects the sound produced when you operate the camera.

	Shutter	Turns on the shutter sound when you press the shutter button.
✓	On	Turns on the beep/shutter sound when you press the control/ shutter button.
	Off	Turns off the beep/shutter sound.

Function Guide

When you operate the camera, the function guide appears.

✓	On	Displays the function guide.
	Off	Does not display the function guide.

Initialize

Initializes the setting to the default setting. Even if you execute this function, the images stored in the internal memory are retained.

① Select [Initialize] with ▲/▼ on the control button, then press ●.
The message “Reset to default settings” appears.

② Select [OK] with ▲, then press ●.
The settings are reset to the default setting.

To cancel initializing

Select [Cancel] in step ②, then press ●.

• Be sure not to power off the camera while initializing.

Main Settings — Main Settings 2

For details on the operation ☞ page 55

The default settings are marked with ✓.

USB Connect

Selects the USB mode when connecting the camera to a computer or a PictBridge compliant printer using the dedicated USB cable.

	PictBridge	Connects the camera to a PictBridge compliant printer (page 82). When you connect the camera to a computer, the copy wizard starts automatically, and the images in the recording folder on the camera are copied to the computer. (with Windows Vista/XP, Mac OS X)
✓	Mass Storage	Establishes a Mass Storage connection between the camera and a computer or other USB device (page 71).

Video Out

Sets the video signal output according to the TV color system of the connected video equipment. The TV color systems differ depending on the country and region.
To view images on a TV screen, check the TV color system of the country or region of use (page 66).

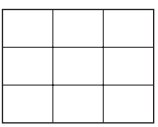
NTSC	Sets the video output signal to NTSC mode (e.g., for the USA, Japan).
PAL	Sets the video output signal to PAL mode (e.g., for Europe).

For details on the operation ☞ page 55

The default settings are marked with ✓.

Grid Line

With reference to the grid lines, you can easily set a subject in a horizontal/vertical position.

	On	Displays the grid lines. 
✓	Off	Does not display the grid lines.

• The grid lines are not recorded.

Digital Zoom

Selects the digital zoom mode. The camera enlarges the image using optical zoom (up to 4×). When the zoom scale exceeds 4×, the camera uses either smart or precision digital zoom.

✓	Smart (Smart zoom) (sQ)	Enlarges the image digitally within the range where the image will not be distorted, according to the image size. This is not available when the image size is set to [10M], [16:9 (7M)] or [3:2]. • The total zoom scale of Smart zoom is shown in the following table.
	Precision (Precision digital zoom) (PQ)	Enlarges all image sizes by the total zoom scale of approximately 8×, including the optical zoom 4×. However, note that the picture quality deteriorates when the optical zoom scale is exceeded.
	Off	Does not use the digital zoom.

Image size and total zoom scale using Smart zoom (Including optical zoom 4×)

Size	Total zoom scale
5M	Approx. 5.6×
3M	Approx. 7.1×
VGA	Approx. 22×
16:9 (2M)	Approx. 7.6×

- You cannot use the Digital zoom while shooting movies.

Auto Review

Displays the recorded image on the screen for approximately two seconds immediately after shooting a still image.

✓	On	Uses the Auto Review.
	Off	Does not use Auto Review.

- If you press the shutter button halfway down, the recorded image display disappears and you can immediately shoot the next image.
- You cannot use the Auto review while shooting in the Burst mode.

Memory Tool — Memory Stick Tool

For details on the operation ☞ page 55

This item appears only when “Memory Stick Duo” media is inserted in the camera.

Format

Formats the “Memory Stick Duo” media. Commercially available “Memory Stick Duo” media is already formatted, and can be used immediately.

- Note that formatting permanently erases all data on “Memory Stick Duo” media, including even protected images.

① Select [Format] with ▲/▼ on the control button, then press ●.
The message “All data on Memory Stick will be erased” appears.

② Select [OK] with ▲, then press ●.
Formatting starts.

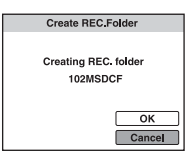
To cancel formatting

Select [Cancel] in step ②, then press ●.

Create REC.Folder

Creates a folder in “Memory Stick Duo” media for recording images.

① Select [Create REC.Folder] with ▲/▼ on the control button, then press ●.
The folder creation screen appears.



② Select [OK] with ▲, then press ●.
A new folder is created with a number incremented one higher than the largest number, and the folder becomes the current recording folder.

To cancel the folder creation

Select [Cancel] in step ②, then press ●.

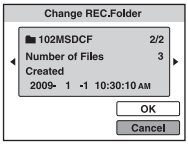
- When not creating a new folder, the “101MSDCF” folder is selected as the recording folder.
- You can create folders designated up to “999MSDCF”.
- You cannot delete a folder with the camera. To delete a folder, use your computer, etc.
- Images are recorded in the newly created folder until you create another folder or select another recording folder.
- Up to 9,999 images can be stored in one folder. When the folder capacity is exceeded, a new folder is automatically created.
- For details, see “Image file storage destinations and file names” (page 73).

For details on the operation ☞ page 55

Change REC.Folder

Changes the folder currently used for recording images.

① Select [Change REC.Folder] with ▲/▼ on the control button, then press ●.
The folder selection screen appears.



② Select the desired folder with ◀/▶, and [OK] with ▲, then press ●.

To cancel changing the recording folder

Select [Cancel] in step ②, then press ●.

- You cannot select the "100MSDCF" folder as a recording folder.
- You cannot move recorded images to another folder.

Copy

Copies all images in the internal memory to "Memory Stick Duo" media.

① Insert "Memory Stick Duo" media having sufficient free capacity.

② Select [Copy] with ▲/▼ on the control button, then press ●.
The message "All data on internal memory will be copied" appears.

③ Select [OK] with ▲, then press ●.
Copying starts.

To cancel copying

Select [Cancel] in step ③, then press ●.

- Use a fully charged battery pack. If you attempt to copy image files using a battery pack with little remaining charge, the battery pack may run out, causing copying to fail or possibly corrupting the data.
- You cannot select images to copy.
- The original images in the internal memory are retained even after copying. To delete the contents of the internal memory, remove the "Memory Stick Duo" media after copying, then format the internal memory ([Format] in [Internal Memory Tool]) (page 62).
- A new folder is created on the "Memory Stick Duo" media and all the data will be copied to it. You cannot choose a specific folder and copy images to it.
- The DPOF (Print order) marks on the images are not copied.

Memory Tool — Internal Memory Tool

For details on the operation ☞ page 55

This item does not appear when “Memory Stick Duo” media is inserted in the camera.

Format

Formats the internal memory.

• Note that formatting permanently erases all data in the internal memory, including even protected images.

① Select [Format] with ▲/▼ on the control button, then press ●.
The message “All data on internal memory will be erased” appears.

② Select [OK] with ▲, then press ●.
Formatting starts.

To cancel formatting

Select [Cancel] in step ②, then press ●.

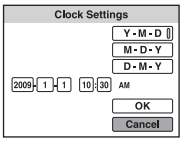
Clock Settings

For details on the operation ☞ page 55

Clock Settings

Sets the date and time.

① Select [Clock Settings] from the (Setup) screen.



② Press ● on the control button.

③ Select the date display format with ▲/▼, then press ●.

④ Select each item with ◄/► and set the numeric value with ▲/▼, then press ●.

⑤ Select [OK], then press ●.

• Midnight is indicated as 12:00 AM, and noon as 12:00 PM.

To cancel the clock setting

Select [Cancel] in step ⑤, then press ●.

Language Setting

For details on the operation ☞ page 55

Language Setting

Selects the language to be used in the menu items, warnings, and messages.

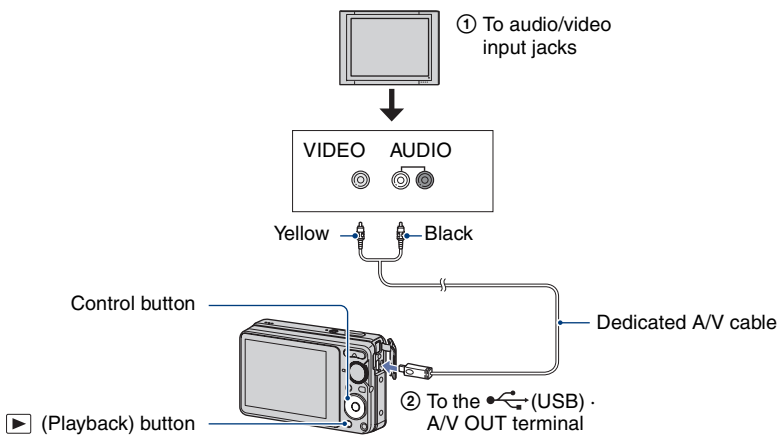
Viewing images on a TV

You can view images on a TV by connecting the camera to a TV.
The connection varies according to the type of TV the camera is connected to.

Viewing images by connecting the camera to a TV with the supplied dedicated A/V cable

Turn off both the camera and the TV before connecting the camera to the TV.

1 Connect the camera to the TV with the dedicated A/V cable (supplied).



- If your TV has stereo input jacks, connect the audio plug (black) of the dedicated A/V cable to the left audio jack.

2 Turn on the TV and set the input.

- Refer also to the operating instructions supplied with the TV.

3 Press the (Playback) button to turn on the camera.

Images shot with the camera appear on the TV.

Press ◀/▶ on the control button to select the desired image.

- When using your camera abroad, it may be necessary to switch the video signal output to match that of your TV system (page 57).

On TV color systems

If you want to view images on a TV screen, you need a TV with a video input jack and the dedicated A/V cable. The color system of the TV must match that of your digital still camera. Check the following lists for the TV color system of the country or region where the camera is used.

NTSC system

Bahama Islands, Bolivia, Canada, Central America, Chile, Colombia, Ecuador, Jamaica, Japan, Korea, Mexico, Peru, Surinam, Taiwan, the Philippines, the U.S.A., Venezuela, etc.

PAL system

Australia, Austria, Belgium, China, Czech Republic, Denmark, Finland, Germany, Holland, Hong Kong, Hungary, Italy, Kuwait, Malaysia, New Zealand, Norway, Poland, Portugal, Singapore, Slovak Republic, Spain, Sweden, Switzerland, Thailand, United Kingdom, etc.

PAL-M system

Brazil

PAL-N system

Argentina, Paraguay, Uruguay

SECAM system

Bulgaria, France, Guiana, Iran, Iraq, Monaco, Russia, Ukraine, etc.

Enjoying your Windows computer

For details on using a Macintosh computer, refer to “Using your Macintosh computer” (page 78).
Illustrations of screens used in this section are based on the English version.

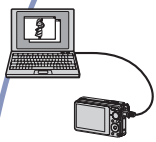


Install the software (supplied) first (page 69)



- Installing the software as follows:
 – “PMB”

Copying images to your computer (page 71)



- Copying images to your computer using “PMB”.
- Enjoying images using “PMB” as follows:
 – Viewing images saved on your computer
 – Editing images
 – Displaying the shooting locations of still images on maps online
 – Creating a disc with the images shot (requires CD or DVD disc writing drive)
 – Printing or saving still images with the date

Additional information on this product and answers to frequently asked questions can be found at the Sony Customer Support Website.
http://www.sony.net/

Recommended computer environment

The following environment is recommended for a computer connected to the camera.

Recommended environment for copying images

OS (pre-installed): Microsoft Windows 2000 Professional SP4/Windows XP*1 SP3/Windows Vista*2 SP1

- Operation is not assured in an environment based on an upgrade of the operating systems described above or in a multi-boot environment.

USB jack: Provided as standard

Recommended environment for using "PMB"

OS (pre-installed): Microsoft Windows XP*1 SP3/Windows Vista*2 SP1

CPU/Memory: Pentium III 500 MHz or faster, 256 MB of RAM or more (Recommended: Pentium III 800 MHz or faster and 512 MB of RAM or more)

Hard Disk: Disk space required for installation— approximately 500 MB

Display: Screen resolution: 1,024 × 768 dots or more

Video Memory: 32 MB or more (Recommended: 64 MB or more)

*1) 64-bit editions are not supported.

*2) Starter (Edition) is not supported.

Notes on connecting the camera to a computer

- The computer environment must also satisfy the operating requirements of the OS.
- Operations are not guaranteed for all the recommended computer environments mentioned above.
- If you connect two or more USB devices to a single computer at the same time, some devices, including the camera, may not operate, depending on the types of USB devices you are using.
- Operations are not guaranteed when using a USB hub.
- Connecting the camera using a USB interface that is compatible with Hi-Speed USB (USB 2.0 compliant) allows advanced transfer (high speed transfer) as the camera is compatible with Hi-Speed USB (USB 2.0 compliant).
- There are two modes for a USB connection when connecting a computer, [Mass Storage] (default setting) and [PictBridge] modes. This section describes [Mass Storage] as an example. For details on [PictBridge], see page 57.
- When your computer resumes from a suspend or sleep mode, communication between the camera and your computer may not recover at the same time.

Installing the software (supplied)

You can install the software (supplied) using the following procedure.

• Log on as Administrator.

1 Turn on your computer, and insert the CD-ROM (supplied) into the CD-ROM drive.

The installation menu screen appears.

- If it does not appear, double-click [Computer] (in Windows XP, [My Computer]) → (SONYPICTUTIL).
- The AutoPlay screen may appear. Select "Run Install.exe." and follow the instructions that appear on the screen to proceed with the installation.

2 Click [Install].

The "Choose Setup Language" screen appears.

3 Select the desired language, then click [Next].

The "License Agreement" screen appears.

4 Read the agreement carefully. If you accept the terms of the agreement, click the radio button next to [I accept the terms of the license agreement] and then click [Next].

5 Follow the instructions on the screen to complete the installation.

- When the restarting confirmation message appears, restart the computer following the instructions on the screen.
- DirectX may be installed depending on the system environment of your computer.

6 Remove the CD-ROM after the installation is complete.

After you install the software, the short cut icons for "PMB", "PMB Guide", are created on the desktop.



• Double-click to start "PMB".



• Double-click to start "PMB Guide".

On the “PMB (Picture Motion Browser)” (supplied)

You can use still images and movies from the camera more than ever by taking advantage of the software.
This section summarizes the “PMB”.

“PMB” overview

With the “PMB” you can:

- Import images shot with the camera and display them on the computer.
- Organize images on the computer on a calendar by shooting date to view them.
- You can view image files stored on a computer with the camera by copying them to “Memory Stick Duo” media.
- Retouch (Red Eye Correction, etc.), print, and send still images as e-mail attachments, change the shooting date and more.
- Still images can be printed or saved with the date.
- You can create a data disc using a CD burner drive or DVD burner drive.
- Upload the image to the Web.
- For details, refer to “PMB Guide”.

To access “PMB Guide”

- Double-click “PMB Guide” icon on the desktop.
- From the Start menu, click [Start] → [All Programs] → [Sony Picture Utility] → [Help] → [PMB Guide].

Starting and exiting the “PMB”

Starting the “PMB”

Double-click the (PMB) icon on the desktop.
Or, from the Start menu: Click [Start] → [All Programs] → [Sony Picture Utility] → [PMB].

- The confirmation message of the Information tool appears on the screen when starting the “PMB” for the first time. Select [Start]. This function informs you of news, such as software updates. You can change the setting later.

Exiting the “PMB”

Click button in the top right corner of the screen.

Copying images to your computer using the “PMB”

Preparing the camera and the computer

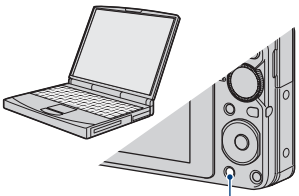
1 Insert “Memory Stick Duo” media with recorded images into the camera.

- When copying images in the internal memory, this step is unnecessary.

2 Insert the sufficiently charged battery pack into the camera, or connect the camera to a wall outlet (wall socket) with the AC Adaptor (sold separately).

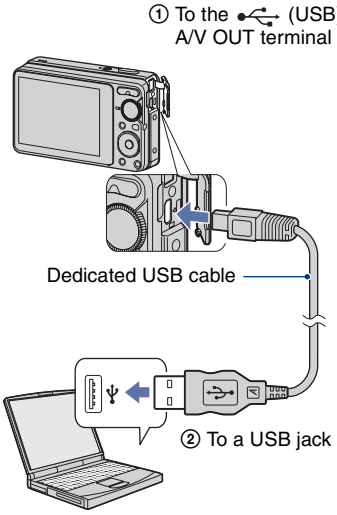
- When you copy images to your computer using the battery pack with little remaining charge, copying may fail or image data may become corrupted if the battery pack shuts down too soon.

3 Turn on the computer, then press the ▶ (Playback) button.

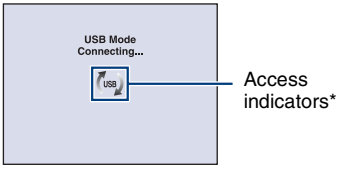


▶ (Playback) button

Connecting the camera to your computer



“Connecting...” appears on the screen of the camera.



When a USB connection is established for the first time, your computer automatically runs a program to recognize the camera. Wait for a while.

* is displayed on the screen during the communication session.
Do not operate the computer while the indicator is displayed. When the indicator changes to USB, you can start using the computer again.

- If “Connecting...” does not appear, set [USB Connect] to [Mass Storage] (page 57).

Copying images to a computer

1 Connects the camera to a computer as described “Connecting the camera to your computer”.

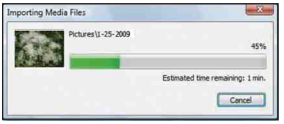
After making a USB connection, the [Import Media Files] screen of “PMB” appears automatically.



- If you use the “Memory Stick” media slot, refer to page 75.
- If the AutoPlay Wizard appears, close it.

2 Import the images.

To start importing images, click the [Import] button.

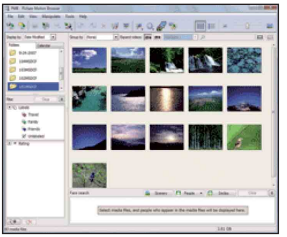


By default, images are imported into a folder created in “Pictures” (in Windows XP, “My Pictures”) that is named with the date of importing.

- For details on the “PMB”, refer to “PMB Guide”.

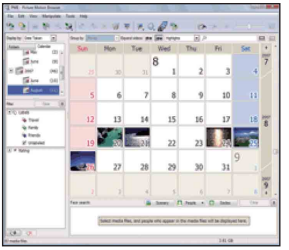
Viewing images on your computer

When importing is complete, the “PMB” starts. Thumbnails of the imported images are displayed.



- The “Pictures” (in Windows XP, “My Pictures”) folder is set as the default folder in “Viewed folders”.

Organize images on the computer on a calender by shooting date to view them. For details, see the “PMB Guide”.



Example: Month display screen

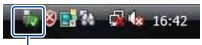
To delete the USB connection

Perform the procedures from step ① to ④ below before:

- Disconnecting the dedicated USB cable.
- Removing “Memory Stick Duo” media.
- Inserting “Memory Stick Duo” media into the camera after copying images from the internal memory.
- Turning off the camera.

① Double-click the disconnect icon on the tasktray.

Windows Vista



Double-click here

Windows XP/Windows 2000



Double-click here

② Click (USB Mass Storage Device) → [Stop].

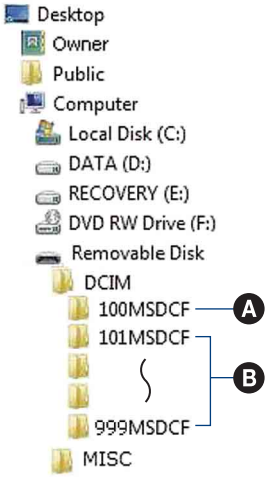
③ Confirm the device on the confirmation window, then click [OK].

④ Click [OK].
The device is disconnected.
- Step ④ is unnecessary for Windows Vista/XP.

Image file storage destinations and file names

The image files recorded with the camera are grouped as folders on the “Memory Stick Duo” media or the internal memory.

Example: viewing folders on Windows Vista



Ⓐ Folder containing image data recorded using a camera not equipped with the folder creating function.

Ⓑ Folder containing image data recorded using the camera.
When no new folders are created, there are folders as follows:
– “Memory Stick Duo” media: “101MSDCF” only
– Internal memory: “101_SONY” only

- You cannot record any images to the “100MSDCF” folder. The images in this folder are available only for viewing.
- You cannot record/play back any images to the “MISC” folder.

- Image files are named as follows:
 - Still image files: DSC0□□□□.JPG
 - Movie files: MOV0□□□□.AVI
 - Index image files that are recorded when you record movies: MOV0□□□□.THM

 □□□□ stands for any number within the range from 0001 to 9999. The numerical portions of the name of a movie file recorded in movie mode and its corresponding index image file are the same.
- For more information about folders, see pages 54 and 60.

Copying images to a computer without “PMB”

You can copy images to your computer without “PMB” as follows.

For a computer with a “Memory Stick” media slot

Remove the “Memory Stick Duo” media from the camera and insert it in the “Memory Stick Duo” media Adaptor. Insert the “Memory Stick Duo” media Adaptor in the computer and copy the images.

- Even when you are using Windows 95/98/98 SecondEdition/NT/Me, you can copy images by inserting the “Memory Stick Duo” media into the “Memory Stick” media slot on your computer.
- If the “Memory Stick PRO Duo” media is not recognized, see page 92.

For a computer without a “Memory Stick” media slot

Make a USB connection and follow Stages to copy images.

- The screen displays shown in this section are the examples for copying images from “Memory Stick Duo” media.
- The camera is not compatible with Windows 95/98/98 SecondEdition/NT/Me of the Windows operating system.
 When you use a computer without a “Memory Stick” media slot, use a commercially available “Memory Stick” media Reader/Writer to copy images from “Memory Stick Duo” media to your computer.
- To copy images in the internal memory to your computer, copy the images to “Memory Stick Duo” media first, then copy them to your computer.

Copying images to a computer -Windows Vista/XP

This section describes an example of copying images to a “Documents” (For Windows XP: “My Documents”).

1 Prepare the camera and a computer.

Perform the same procedure as described in “Preparing the camera and the computer” on page 71.

2 Connect the camera to your computer with the dedicated USB cable.

Perform the same procedure as described in “Connecting the camera to your computer” on page 71.

- If “PMB” is already installed, then [Import Media Files] is started on “PMB” but select [Cancel] to finish.

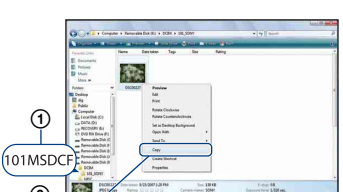
3 Click [Open folder to view files] (For Windows XP: [Open folder to view files] → [OK]) as the wizard screen appears automatically on the desktop.



- When the wizard screen does not appear automatically, follow the procedure: → “For Windows 2000”.

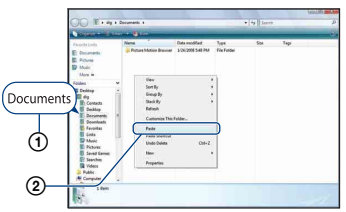
4 Double-click [DCIM].

5 Double-click the folder where the image files you want to copy are stored. Then, right-click an image file to display the menu and click [Copy].



- On the storage destination of the image files, see page 73.

6 Click the [Documents] (For Windows XP: [My Documents]) folder. Then, right-click on the “Documents” window to display the menu and click [Paste].



The image files are copied to the [Documents] (For Windows XP: [My Documents]) folder.

- When an image with the same file name exists in the copy destination folder, the overwrite confirmation message appears. When you overwrite an existing image with a new one, the original file data is deleted. To copy an image file to the computer without overwriting, change the file name and then copy the image file. However, note that if you change the file name (page 77), you may not play back that image with the camera.

For Windows 2000

Double-click [My Computer] → [Removable Disk] after connecting the camera to your computer. Then, perform from step 4.

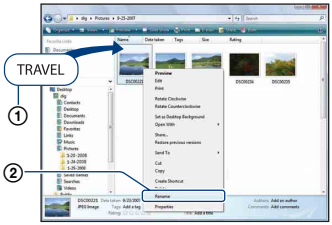
Viewing image files stored on a computer with the camera copying to the “Memory Stick Duo” media

This section describes the process using a Windows computer as an example.
When an image file copied to a computer no longer remains on “Memory Stick Duo” media, you can view that image again on the camera by copying the image file on the computer to “Memory Stick Duo” media.

- Skip step 1 if the file name set with the camera has not been changed.
- You may not be able to play back some images depending on the image size.
- Sony does not guarantee playback of image files on the camera if the files have been processed using a computer or recorded with another camera.
- When there are no folders in “Memory Stick Duo” media, create a folder (page 60) with the camera first, then copy the image files.

1 Right-click the image file, then click [Rename].Change the file name to “DSC0□□□□”.

Enter a number from 0001 to 9999 for □□□□.



- If the overwrite confirmation message appears, enter a different number.
- An extension may be displayed depending on the computer settings. The extension for still images is JPG, and the extension for movies is AVI. Do not change the extension.

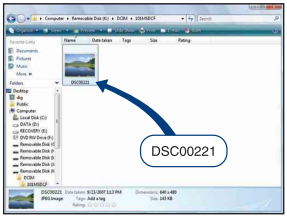
2 Copy the image file to the “Memory Stick Duo” media folder in the following order.

① Right-click the image file, then click [Copy].

② Double-click [Removable Disk] or [Sony MemoryStick] in [Computer] (in Windows XP, [My Computer]).

③ Right-click the [□□□MSDCF] folder in the [DCIM] folder, then click [Paste].

- □□□ stands for any number within the range from 100 to 999.



Using your Macintosh computer

You can copy images to your Macintosh computer.

- "PMB" is not compatible with Macintosh computers.

Recommended computer environment

The following environment is recommended for a computer connected to the camera.

Recommended environment for copying images

OS (pre-installed): Mac OS 9.1/9.2/ Mac OS X(v10.1 to v10.5)

USB jack: Provided as standard

Notes on connecting the camera to a computer

- Operations are not guaranteed for all the recommended computer environments mentioned above.
- If you connect two or more USB devices to a single computer at the same time, some devices, including your camera, may not operate depending on the types of USB devices you are using.
- Operations are not guaranteed when using a USB hub.
- Connecting the camera using a USB interface that is compatible with Hi-Speed USB (USB 2.0 compliant) allows advanced transfer (high speed transfer) as the camera is compatible with Hi-Speed USB (USB 2.0 compliant).
- There are two modes for a USB connection when connecting a computer, [Mass Storage] (default setting) and [PictBridge] modes. This section describes [Mass Storage] as an example. For details on [PictBridge], see page 57.
- When your computer resumes from the suspend or sleep mode, communication between the camera and your computer may not recover at the same time.

Copying and viewing images on a computer

1 Prepare the camera and a Macintosh computer.

Perform the same procedure as described in "Preparing the camera and the computer" on page 71.

2 Connect the camera to your computer with the dedicated USB cable.

Perform the same procedure as described in "Connecting the camera to your computer" on page 71.

3 Copy image files to the Macintosh computer.

① Double-click the newly recognized icon → [DCIM] → the folder where the images you want to copy are stored.

② Drag and drop the image files to the hard disk icon.
The image files are copied to the hard disk.

- For details on the storage location of the images and file names, see page 73.

4 View images on the computer.

Double-click the hard disk icon → the desired image file in the folder containing the copied files to open that image file.

To delete the USB connection

Drag and drop the drive icon or the icon of the “Memory Stick Duo” media to the “Trash” icon beforehand when you perform the procedures listed below, or the camera is disconnected from the computer.

- Disconnecting the dedicated USB cable.
- Removing “Memory Stick Duo” media.
- Inserting “Memory Stick Duo” media into the camera after copying images from the internal memory.
- Turning off the camera.

Technical Support

Additional information on this product and answers to frequently asked questions can be found at the Sony Customer Support Website.
http://www.sony.net/

Viewing “Cyber-shot Step-up Guide”

When you install “Cyber-shot Handbook”, “Cyber-shot Step-up Guide” is also installed. “Cyber-shot Step-up Guide” further introduces how to use the camera and optional accessories.

Viewing on Windows

Double-click (Step-up Guide) on the desktop.
To access “Step-up Guide” from the Start menu, click [Start] → [All Programs] (in Windows 2000, [Programs]) → [Sony Picture Utility] → [Step-up Guide].

Viewing on Macintosh

1 Copy the [stepupguide] folder in the [stepupguide] folder to your computer.

2 Select [stepupguide], [language] and then [GB] folder stored in the CD-ROM (supplied), and copy all the files in the [GB] folder to the [img] folder in the [stepupguide] folder that you copied to your computer in step 1. (Overwrite the files in the [img] folder with the files from the [GB] folder.)

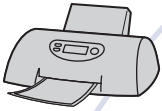
3 After copying is complete, double-click “stepupguide.hqx” in the [stepupguide] folder to uncompress it, then double-click the generated file “stepupguide”.

- If an uncompress tool for HQX file is not installed, install the Stuffit Expander.

How to print still images

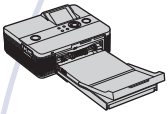
When you print images shot in [16:9] mode, both edges may be cut off, so be sure to check before printing (page 94).

Printing directly using a PictBridge compliant printer (page 82)



You can print images by connecting the camera directly to a PictBridge compliant printer.

Printing directly using a “Memory Stick” media compliant printer



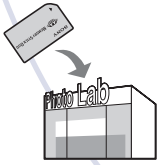
You can print images with a “Memory Stick” media compliant printer.
For details, see the operating instructions supplied with the printer.

Printing using a computer



You can copy images to a computer using the supplied “PMB” software and print the images.
You can print images date inserted (page 70).

Printing at a shop (page 85)



You can take “Memory Stick Duo” media containing images shot with your camera to a photo printing service shop. You can make a DPOF (Print order) mark on the images which you want to print out in advance.

Printing images directly using a PictBridge compliant printer

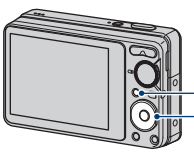
Even if you do not have a computer, you can print images shot using your camera by connecting the camera directly to a PictBridge compliant printer.

PictBridge

- "PictBridge" is based on the CIPA standard. (CIPA: Camera & Imaging Products Association)
- You cannot print movies.
- If the indicator flashes on the screen of the camera (error notification), check the connected printer.

Stage 1: Preparing the camera

Prepare the camera to connect it to the printer with the dedicated USB cable.



- It is recommended to use a fully charged battery pack to prevent the power from turning off partway through printing.

1 **Press the MENU button to display the MENU screen.**

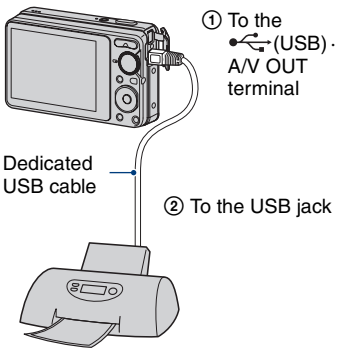
2 **Select (Setup) with ▼ on the control button, then press ●.**

3 **Select [Main Settings 2] with ▲/▼, and select [USB Connect], then press ●.**

4 **Select [PictBridge] with ▲/▼, then press ●.**
The USB mode is set.

Stage 2: Connecting the camera to the printer

1 Connect the camera to the printer.

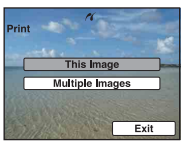


2 Turn on the printer. Press the ▶ (Playback) button and turn on the camera.

After the connection is made, the indicator appears.



3 Press the MENU button, select [Print] with ▲/▼ on the control button, then press ●.



The camera is set to playback mode, then an image and the print menu appear on the screen.

Stage 3: Selecting images you want to print

Select [This Image] or [Multiple Images] with ▲/▼, then press ●.

When you select [This Image]
You can print the selected image. Move on to Stage 4.

When you select [Multiple Images]
You can print multiple selected images.

① Select the image you want to print with ▲/▼/◀/▶, then press ●.
✓ appears on the selected image.

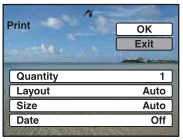
② Press the MENU button to display the menu.

③ Select [OK] with ▲, then press ●.

- To print all the images of a folder, select [Multiple Images] on the index screen, select the bar with ◀, and place a ✓ mark in the check box.

Stage 4: Printing

1 Select print settings with ▲/▼/◄/►.



[Quantity]

Selects the number of copies of the specified image to be printed.

- The designated number of images may not all fit onto a single sheet depending on the quantity of images.

[Layout]

Selects the number of image you want to print side by side on a sheet.

[Size]

Select the size of the printing sheet.

[Date]

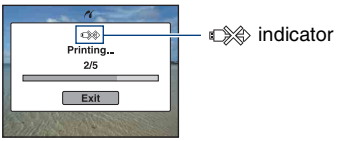
Select [Day&Time] or [Date] to insert the date and time on images.

- When you choose [Date], the date will be inserted in the order you select (page 63). This function may not be provided depending on the printer.

2 Select [OK] with ▲, then press ●.

The image is printed.

- Do not disconnect the dedicated USB cable while the (PictBridge Connecting) indicator appears on the screen.



Stage 5: Completing the printing

Make sure the screen has returned to Stage 2, and disconnect the dedicated USB cable from the camera.

Printing at a shop

You can take “Memory Stick Duo” media containing images shot with the camera to a photo printing service shop. As long as the shop supports photo printing services conforming to the DPOF, you can make a DPOF (Print order) mark on images in advance so that you do not need to reselect them when you print them out at the shop.

- You cannot print images stored in the internal memory at a print shop directly from the camera. Copy the images to “Memory Stick Duo” media, then take the “Memory Stick Duo” media to the print shop.

What is DPOF?

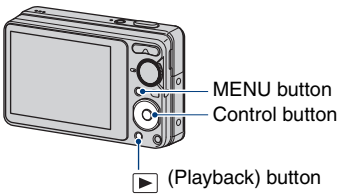
DPOF (Digital Print Order Format) is a function allowing you to make a DPOF (Print order) mark on images of “Memory Stick Duo” media that you want to print out later.

- You cannot mark movies.
- You can make a DPOF (Print order) mark on up to 999 images.

When taking “Memory Stick Duo” media to a shop

- Consult your photo printing service shop as to what types of “Memory Stick Duo” media they handle.
- If “Memory Stick Duo” media is not handled by your photo printing service shop, copy the images you want to print out to another medium such as a CD-R and take it to the shop.
- Be sure to take the “Memory Stick Duo” media Adaptor with it.
- Before you take image data to a shop, always copy (back up) your data to a disk.
- You cannot set the number of prints.
- When you want to superimpose dates on images, consult your photo printing service shop.

Marking a selected image



1 **Press the ▶ (Playback) button.**

2 **Select the image you want to print.**

3 **Press the MENU button to display the menu.**

4 **Select [DPOF] with ▲/▼ on the control button and select [This Image] with ◀/▶, then press ●.**

A DPOF (Print order) mark is attached to the image.



To remove the mark

Select the images from which you want to remove the mark, then repeat steps 3 and 4.

Selecting and marking the images

1 Press the MENU button while displaying images in single-image mode or in index mode.

2 Select [DPOF] with ▲/▼ on the control button, [Multiple Images] with ◄/►, and then press ●.

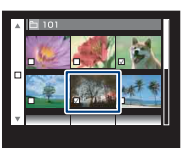
3 Select an image to mark with the control button, then press ●.

The ✓ mark is attached to the selected image.

Single Image



Index Display



4 Press the MENU button.

5 Select [OK] with ▲, then press ●.

The DPOF mark appears on the screen.

Single Image



Index Display



To cancel the selection

Select [Exit] in step 5, then press ●.

To remove the mark

Select the images that you want to remove the marks, then press ● in step 3.

To mark all the images of a folder

To mark all the images of a folder, select [Multiple Images] on the index screen, select the bar with ◄, and place a ✓ mark in the check box.



Troubleshooting

If you experience trouble with your camera, try the following solutions.

❶ **Check the items on pages 88 to 96.**

❷ **Remove the battery pack, wait for about one minute, re-insert the battery pack, then turn on the power.**

❸ **Initialize the settings (page 56).**

❹ **Consult your Sony dealer or local authorized Sony service facility.**

Be aware that by sending the camera for repair, you give consent that the contents of the internal memory may be checked.

Click one of the following items to jump to the page explaining the symptom and cause or the appropriate corrective action.

Battery pack and power	88	"Memory Stick Duo" media	93
Shooting still images/movies	89	Internal memory	94
Viewing images	91	Printing	94
Deleting/Editing images	92	PictBridge compliant printer	95
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Battery pack and power

Cannot insert the battery pack.

- Insert the battery pack correctly to push the battery eject lever.

Cannot turn on the camera.

- After inserting the battery pack into the camera, it may take a few moments for the camera to power up.
- Insert the battery pack correctly.
- The battery pack is discharged. Insert a charged battery pack.
- The battery pack is dead (page 103). Replace it with a new one.
- Use a recommended battery pack.

The power turns off suddenly.

- If you do not operate the camera for about three minutes while the power is on, the camera turns off automatically to prevent wearing down the battery pack. Turn on the camera again.
- The battery pack is dead (page 103). Replace it with a new one.
- The power may go off automatically to protect the camera depending on the temperature of the unit or the battery pack. In this case, the message appears on the screen before the power goes off.

The remaining charge indicator is incorrect.

- This phenomenon occurs when you use the camera in an extremely hot or cold location.
- A discrepancy arose between the remaining charge indicator and the actual remaining battery charge. Fully discharge the battery pack once, then charge it to correct the indication.
- The battery pack is discharged. Insert a charged battery pack.
- The battery pack is dead (page 103). Replace it with a new one.

Cannot charge the battery pack.

- You cannot charge the battery pack using the AC Adapter (sold separately). Use the battery charger to charge the battery.

The CHARGE lamp flashes while charging the battery pack.

- Remove the battery pack being charged, and then insert the same battery pack into the battery charger securely again.
- The temperature may be outside of the recommended operating temperature. Charge the battery pack in an recommended ambient temperature of between 10°C to 30°C (50°F to 86°F). (BC-CSKA only)
- For details, see page 104.

Shooting still images/movies

Cannot record images.

- Check the free capacity of the internal memory or “Memory Stick Duo” media. If it is full, do one of the following:
 – Delete unnecessary images (page 32).
 – Change the “Memory Stick Duo” media.
- You cannot record images while charging the flash.
- When shooting a still image, set the mode dial to a position other than .
- Set the mode dial to when shooting movies.

The subject is not visible on the screen.

- Your camera is set to the Playback mode. Press (Playback) to change to the recording mode (page 30).

Anti-blur function does not work.

- The anti-blur function does not work when appears on the display.
- The anti-blur function may not work properly when shooting night scenes.
- Shoot after pressing the shutter button halfway down; do not press it fully down suddenly.

The image is out of focus.

- The subject is too close. Make sure to position the lens farther away from the subject than the shortest shooting distance, approximately 5 cm (2 inches) (W)/50 cm (1 feet 7 3/4 inches) (T) from the front of the lens, when shooting (page 22).
- (Twilight) mode or (Landscape) mode is selected in the Scene Selection mode when shooting still images.
- The Focus preset function is selected. Select the auto focus mode (page 42).
- Refer to “If the subject is out of focus” on page 43.

Zoom does not work.

- You cannot use the Smart zoom depending on the image size (page 58).
- You cannot use the digital zoom while shooting movies.
- You cannot change the zoom scale while shooting movies.

The flash does not work.

- The flash is set to (Flash forced off) (page 23).
- You cannot use the flash when:
 – [REC Mode] is set to [Burst] (page 39).
 – The mode dial is set to ISO (High Sensitivity) (page 29) or (Twilight) mode is selected in the Scene Selection mode (page 28).
 – Shooting movies.
- Set the flash to (Flash forced on) when (Landscape) mode, (Beach) mode, or (Snow) mode is selected in the Scene Selection mode (page 23).

Fuzzy specks appear in images shot using the flash.

- Particles (dust, pollen, etc.) in the air reflected the flash light and appeared in the image. This is not a malfunction (page 11).

The close-up shoot function (Macro) does not work.

- (Twilight) mode or (Landscape) mode is selected in the Scene Selection mode (page 28).

Macro shooting cannot be released.

- There is no function for releasing a macro. In AUTO (Auto) mode, telephoto shooting is possible even in the macro shooting condition.

The date and time are not displayed.

- While shooting, the date and time are not displayed. They are displayed only during playback.

Cannot insert dates on images.

- This camera does not have a feature for superimposing dates on images (page 94). By using “PMB”, you can print or save images with the date (page 70).

The F value and shutter speed flash when you press and hold the shutter button halfway down.

- The exposure is incorrect. Correct the exposure (page 39).

The screen is too dark or too bright.

- Select the brightness of the LCD backlight (page 18).

The image is too dark.

- You are shooting a subject with a light source behind the subject. Select the metering mode (page 41) or adjust the exposure (page 39).

The image is too bright.

- Adjust the exposure (page 39).

The image colors are not correct.

- Set [Color Mode] to [Normal] (page 47).

Vertical streaks appear when you are shooting a very bright subject.

- The smear phenomenon is occurring and white, black, red, purple, or other streaks appear on the image. This phenomenon is not a malfunction.

Noise appears in the image when you view the screen in a dark place.

- The camera is attempting to increase the visibility of the screen by temporarily brightening the image under conditions of low illumination. There is no effect on the recorded image.

The eyes of the subject come out red.

- Set [Red Eye Reduction] to [On] (page 46).
- Shoot the subject at a distance closer than the flash range using the flash.
- Light the room and shoot the subject.
- Retouch the image using [Red Eye Correction] (page 50).

Dots appear and remain on the screen.

- This is not a malfunction. These dots are not recorded (page 2).

Cannot shoot images in succession.

- The internal memory or “Memory Stick Duo” media is full. Delete unnecessary images (page 32).
- The battery level is low. Insert a charged battery pack.

Viewing images

Cannot play back images.

- Press ▶ (Playback) (page 30).
- The folder/file name has been changed on your computer (page 77).
- Sony does not guarantee playback of image files on the camera if the files have been processed using a computer or recorded with another camera.
- The camera is in USB mode. Delete the USB connection (page 73).

The date and time are not displayed.

- The display indicators are turned off. Show the display indicators by pressing ▲ (DISP) on the control button (page 18).

The image appears rough right after playback starts.

- This may happen due to image processing. This is not a malfunction.

The image does not appear on the TV.

- Check [Video Out] to see if the video output signal of your camera is set to the color system of your TV (page 57).
- Check whether the connection is correct (page 65).

Deleting/Editing images

Cannot delete an image.

- Cancel the protection (page 52).

The resizing function does not work.

- You cannot resize movies.

Computers

Computer OS compatibility with camera is unknown.

- Check “Recommended computer environment” on page 68 for Windows, and page 78 for Macintosh.

“Memory Stick PRO Duo” media is not recognized by a computer with a “Memory Stick” media slot.

- Check that the computer and the “Memory Stick” media Reader/Writer support “Memory Stick PRO Duo” media. Users of computers and “Memory Stick” media Readers/Writers made by manufacturers other than Sony should contact those manufacturers.
- If “Memory Stick PRO Duo” media is not supported, connect the camera to the computer (pages 71 and 78). The computer recognizes the “Memory Stick PRO Duo” media.

Your computer does not recognize your camera.

- Turn on the camera.
- When the battery level is low, insert a charged battery pack or use the AC Adaptor (sold separately).
- Set [USB Connect] to [Mass Storage] (page 57).
- Use the dedicated USB cable (supplied) (page 71).
- Disconnect the dedicated USB cable from both the computer and the camera, and connect it again firmly.
- Disconnect all equipment other than the camera, the keyboard and the mouse from the USB connectors of your computer.
- Connect the camera directly to your computer without passing through a USB hub or other device (page 71).

Cannot copy images.

- Connect the camera and your computer correctly making a USB connection (page 71).
- Follow the designated copy procedure for your OS (pages 68 and 78).
- When you shoot images with “Memory Stick Duo” media formatted by a computer, you may not be able to copy the images to a computer. Shoot using “Memory Stick Duo” media formatted by your camera (page 60).

After making a USB connection, “PMB” does not start automatically.

- Make the USB connection after the computer is turned on (page 71).

Cannot play back images on your computer.

- If you are using “PMB”, refer to “PMB Guide” (page 70).
- Consult the computer or software manufacturer.

The image and sound are interrupted by noise when you view a movie on a computer.

- You are playing back the movie directly from the internal memory or the “Memory Stick Duo” media. Copy the movie to the hard disk of your computer, then play back the movie from the hard disk (page 71).

Cannot print an image.

- Refer to the operation manual of the printer.

Images once copied to a computer cannot be viewed on the camera.

- Copy them to a folder recognized by the camera, such as “101MSDCF” (page 73).
- Operate correctly (page 77).

“Memory Stick Duo” media

Cannot insert “Memory Stick Duo” media.

- Insert it in the correct direction.

You have formatted “Memory Stick Duo” media by mistake.

- All the data on the “Memory Stick Duo” media is deleted by formatting. You cannot restore it.

Internal memory

Cannot play back or record images using the internal memory.

- There is “Memory Stick Duo” media inserted in the camera. Remove it.

Cannot copy the data stored in the internal memory to “Memory Stick Duo” media.

- The “Memory Stick Duo” media is full. Copy the image to the “Memory Stick Duo” media with sufficient free capacity.

Cannot copy the data on the “Memory Stick Duo” media or the computer to the internal memory.

- This feature is not available.

Printing

See “PictBridge compliant printer” together with the following items.

Images are printed with both edges cut off.

- Depending on your printer, all the edges of the image may be cut off. Especially when you print an image shot with the image size set to [16:9], the lateral end of the image may be cut off.
- When printing images using your printer, cancel the trimming or borderless settings. Consult the printer manufacturer as to whether the printer provides these functions or not.
- When having images printed at a digital print shop, ask the shop whether they can print the images without cutting off both edges.

Cannot print images with the date inserted.

- You can print images with the date inserted using “PMB” (page 70).
- This camera does not have a feature for superimposing dates on images. However, because the images shot with the camera include information on the recording date, you can print images with the date superimposed if the printer or the software can recognize Exif information. For compatibility with Exif information, consult the manufacturer of the printer or the software.
- If you use a photo printing service, ask them to superimpose the dates on images.

PictBridge compliant printer

A connection cannot be established.

- The camera cannot be connected directly to a printer that is not compliant with the PictBridge standard. Consult the printer manufacturer as to whether the printer is compliant with PictBridge or not.
- Check that the printer is turned on and can be connected to the camera.
- Set [USB Connect] to [PictBridge] (page 57).
- Disconnect and connect the dedicated USB cable again. If an error message is indicated on the printer, refer to the operating instructions supplied with the printer.

Cannot print images.

- Check that the camera and the printer are properly connected using the dedicated USB cable.
- Turn on the printer. For further information, refer to the operating instructions supplied with the printer.
- If you select [Exit] during printing, images may not be printed. Disconnect and connect the dedicated USB cable again. If you still cannot print your images, disconnect the dedicated USB cable, turn the printer off and then on, then connect the dedicated USB cable again.
- Movies cannot be printed.
- Images shot using cameras other than this camera or images modified with a computer may not be printed.

Printing is canceled.

- You disconnected the dedicated USB cable before the (PictBridge Connecting) mark disappears.

Cannot insert the date or print images in the index mode.

- The printer does not provide these functions. Consult the printer manufacturer as to whether the printer provides these functions or not.
- The date may not be inserted in the index mode depending on the printer. Consult the printer manufacturer.

“---- -- --” is printed on the date-inserted part of the image.

- The image does not have the recording data so the date cannot be inserted. Set [Date] to [Off] and print the image again (page 84).

Cannot select the print size.

- Consult the printer manufacturer as to whether the printer can provide the desired size.

Cannot print the image at the size selected.

- When you use paper of a different size after connecting the printer to the camera, disconnect and then reconnect the dedicated USB cable.
- The print setting of the camera differs from that of the printer. Change the setting of either the camera (page 84) or the printer.

Cannot operate the camera after canceling printing.

- Wait for a while as the printer is carrying out the cancellation. It may take some time depending on the printer.

Others

Cannot reset the file-number.

- If you replace a recording medium, you cannot initialize file numbers with the camera. To initialize file numbers, format the “Memory Stick Duo” media or the internal memory (page 60, 62), and then initialize the settings (page 56). However, the data on the “Memory Stick Duo” media or the internal memory will be deleted and all settings, including date, will be initialized.

The camera does not function with the lens portion extended.

- Do not attempt to force the lens that has stopped moving.
- Insert a charged battery pack, then turn on the camera again.

The lens gets fogged.

- Moisture condensation has occurred. Turn off the camera and leave it for about an hour before using it.

The lens does not move when you turn off the camera.

- The battery pack is discharged. Replace it with a charged battery pack.

The camera becomes warm when you use it for a long time.

- This is not a malfunction.

The Clock Set screen appears when you turn on the camera.

- Set the date and time again (page 63).

You want to change the date or time.

- Set the date and time again (page 63).

Warning messages

Messages

If the following messages appear, follow the instructions.



- The battery level is low. Charge the battery pack immediately. Depending on the conditions of use or the type of battery pack, the indicator may flash even though there are still 5 to 10 minutes of remaining battery time left.

For use with compatible battery only

- The battery inserted is not an NP-BK1 battery pack.

System error

- Turn the power off and then on again.

Camera overheating
Allow it to cool

- The camera has been overheating. The power will go off automatically. Place the camera in a cool place until the temperature of the camera grows colder.

Internal memory error

- Turn the power off and then on again.

Reinsert the Memory Stick

- Insert the “Memory Stick Duo” media correctly.
- The inserted “Memory Stick Duo” media cannot be used in your camera (page 101).
- The “Memory Stick Duo” media is damaged.
- The terminal section of the “Memory Stick Duo” media is dirty.

Memory Stick type error

- The inserted “Memory Stick Duo” media cannot be used in your camera (page 101).

Cannot access Memory Stick
Access denied

- You are using the “Memory Stick Duo” media with the access controlled.

Error formatting Memory Stick
Error formatting internal memory

- Format the media again (pages 60, 62).

Memory Stick locked

- You are using the “Memory Stick Duo” media with the write-protect switch, and the switch is set to the LOCK position. Set the switch to the recording position.

No memory space on internal memory
No memory space on Memory Stick

- Delete unnecessary images or files (page 32).

Read only memory

- Your camera cannot record or delete images on this “Memory Stick Duo” media.

No images

- No images that can be played have been recorded in the internal memory.
- No images that can be played back have been recorded on the “Memory Stick Duo” media.
- The selected folder does not contain a file that can be played back in a slideshow.

Folder error

- A folder with the same first three digit number already exists on the “Memory Stick Duo” media (for example: 123MSDCF and 123ABCDE). Select another folder, or create a new folder (pages 60, 61).

Cannot create more folders

- The folder with a name beginning with “999” exists on the “Memory Stick Duo” media. You cannot create any folders if this is the case.

File error

- An error occurred while the image was playing back. Sony does not guarantee playback of image files on the camera if the files have been processed using a computer or recorded with another camera.

Read only folder

- You have selected a folder that cannot be set as a recording folder on the camera. Select another folder (page 61).

File protected

- Release the protection (page 52).

Image size over limit

- You are playing back an image with size that cannot be played back on the camera.

(Vibration warning indicator)

- Camera shake may occur due to insufficient light. Use the flash, turn on the anti-blur function, or mount the camera on a tripod to secure the camera.

Macro is invalid

- The macro is unavailable under the current settings (page 28).

Flash settings cannot be changed

- The flash is unavailable under the current settings (page 28).

Maximum number of images already selected

- You can select up to 100 image files from [Multiple Images].
- When you select all image files of a folder, the maximum number is 999.
- You can add up to 999 image files as Favorites, and you can add the DPOF (Print order) mark to a maximum 999 files. Cancel the selection.

Printer busy
Paper error
No paper
Ink error
Low ink
No ink

- Check the printer.

Printer error

- Check the printer.
- Check if the image you want to print is corrupted.



- The data transmission to the printer may not be completed yet. Do not disconnect the dedicated USB cable.

Processing...

- The printer is canceling the current print job. You cannot print until it is finished. This may take time, depending on the printer.
- If you select all image files of a folder, this may take time for processing.

Operation cannot be executed for movie files

- You have selected a function that is not available for movies.

Operation cannot be executed in unsupported files

- Processing and other editing functions of the camera cannot be performed on image files that have been processed using a computer or images that were recorded with another camera.

Operation cannot be executed when using a PictBridge connection

- Some functions are restricted while the camera is connected to a PictBridge compliant printer.

Unable to detect face for retouch

- Retouching may not be possible depending on the image.

Turn the power off and on again

- The lens malfunction.

Using the camera abroad — Power sources

You can use the camera, the battery charger (supplied), and the AC-LS5K AC Adaptor (sold separately) in any country or region where the power supply is within 100 V to 240 V AC, 50/60 Hz.

- **Do not use an electronic transformer (travel converter), as this may cause a malfunction.**

On the “Memory Stick Duo” media

“Memory Stick Duo” media is a compact, portable IC recording medium. The types of “Memory Stick Duo” media that can be used with the camera are listed in the table below. However, proper operation cannot be guaranteed for all “Memory Stick Duo” media functions.

“Memory Stick” media type	Recording/ Playback
Memory Stick Duo (with MagicGate)	○*1
Memory Stick Duo (without MagicGate)	○*2
MagicGate Memory Stick Duo	○*1*2
Memory Stick PRO Duo	○*1
Memory Stick PRO-HG Duo	○*1*3

*1) “Memory Stick Duo” media, “MagicGate Memory Stick Duo” media and “Memory Stick PRO Duo” media are equipped with MagicGate functions. MagicGate is copyright protection technology that uses encryption technology. Data recording/playback that requires MagicGate functions cannot be performed with the camera.

*2) The camera is not compatible with high-speed data transfer using a parallel interface.

*3) The camera is not compatible with 8-bit parallel data transfer. Supports 4-bit parallel data transfer equivalent to “Memory Stick PRO Duo” media.

- This product is compatible with “Memory Stick Micro” (“M2”) media. “M2” is an abbreviation for “Memory Stick Micro”.
- “Memory Stick Duo” media formatted with a computer is not guaranteed to operate with the camera.
- Data read/write speeds differ depending on the combination of the “Memory Stick Duo” media and the equipment used.
- Do not remove the “Memory Stick Duo” media while reading or writing data.
- Data may be corrupted in the following cases:
 - When the “Memory Stick Duo” media is removed or the camera is turned off during a read or write operation.
 - When the “Memory Stick Duo” media is used in locations subject to static electricity or electrical noise.
- We recommend backing up important data on a hard disk of your computer.
- Do not press down hard when you write down on the memo area.
- Do not attach a label on the “Memory Stick Duo” media itself nor on a “Memory Stick Duo” media Adaptor.
- When you carry or store the “Memory Stick Duo” media, put it in the case supplied with it.
- Do not touch the terminal section of the “Memory Stick Duo” media with your hand or a metal object.
- Do not strike, bend or drop the “Memory Stick Duo” media.
- Do not disassemble or modify the “Memory Stick Duo” media.
- Do not expose the “Memory Stick Duo” media to water.
- Do not leave the “Memory Stick Duo” media within the reach of small children. They might accidentally swallow it.
- Do not insert anything other than “Memory Stick Duo” media into the “Memory Stick Duo” media slot. Otherwise, a malfunction may result.
- Do not use or store the “Memory Stick Duo” media under the following conditions:
 - High temperature locations such as the hot interior of a car parked in direct sunlight
 - Locations exposed to direct sunlight
 - Humid locations or locations with corrosive substances present

Notes on using the “Memory Stick Duo” media Adaptor (sold separately)

- To use “Memory Stick Duo” media with a “Memory Stick” media compliant device, be sure to insert the “Memory Stick Duo” media into a “Memory Stick Duo” media Adaptor. If you insert “Memory Stick Duo” media into a “Memory Stick” media compliant device without a “Memory Stick Duo” media Adaptor, you might not be able to remove it from the device.
- When inserting “Memory Stick Duo” media into a “Memory Stick Duo” media Adaptor, make sure the “Memory Stick Duo” media is inserted facing in the correct direction, then insert it all the way in. Incorrect insertion may result in a malfunction.
- When using “Memory Stick Duo” media inserted into a “Memory Stick Duo” media Adaptor with a “Memory Stick” media compliant device, make sure that the “Memory Stick Duo” media Adaptor is inserted facing the correct direction. Note that improper use may damage the equipment.
- Do not insert a “Memory Stick Duo” media Adaptor into a “Memory Stick” media compliant device without “Memory Stick Duo” media attached. Doing so may result in malfunction of the unit.

Notes on using “Memory Stick PRO Duo” media (sold separately)

“Memory Stick PRO Duo” media with a capacity up to 16 GB have been confirmed to operate properly with the camera.

Notes on using “Memory Stick Micro” media (sold separately)

- To use “Memory Stick Micro” media with the camera, be sure to insert the “Memory Stick Micro” media into a Duo-sized “M2” media Adaptor. If you insert “Memory Stick Micro” media into the camera without a Duo-sized “M2” media Adaptor, you might not be able to remove it from the camera.
- Do not leave the “Memory Stick Micro” media within the reach of small children. They might accidentally swallow it.

On the battery pack

On charging the battery pack

- We recommend charging the battery pack in an ambient temperature of between 10°C to 30°C (50°F to 86°F). The battery pack may not be fully charged in temperatures outside this range.
- The CHARGE lamp may flash in the following. (BC-CSKA only)
 - – When the temperature of the battery pack is too low.
 Remove the battery pack and place it in a warm place.
 - – When the temperature of the battery pack is too high.
 Remove the battery pack and place it in a cool place.

 For details, see page 104.

Effective use of the battery pack

- Battery performance decreases in low temperature surroundings. So in cold places, the operational time of the battery pack is shorter. We recommend the following to ensure longer battery pack use:
 - – Put the battery pack in a pocket close to your body to warm it up, and insert it in the camera immediately before you start shooting.
- The battery pack will run out quickly if you use the flash or zoom frequently.
- We recommend having spare battery packs handy for two or three times the expected shooting time, and making trial shots before taking the actual shots.
- Do not expose the battery pack to water. The battery pack is not water-resistant.
- Do not leave the battery pack in extremely hot places, such as in a car or under direct sunlight.

How to store the battery pack

- Fully discharge the battery pack before storing and store it in a cool, dry place. To maintain the battery pack's function, fully charge the battery pack and then fully discharge it on the camera at least once a year while storing.
- To use the battery pack up, leave the camera in slideshow (page 48) playback mode until the power goes off.
- To keep clean battery pack terminal and prevent short-circuiting, place the battery pack in a plastic bag, etc. when carrying and storing to isolate it from other metal objects, etc.

On battery life

- The battery life is limited. Battery capacity decreases over time and through repeated use. If decreased usage time between charges becomes significant, it would be best to replace it with a new one.
- The battery life varies according to how it is stored and the operating conditions and environment in which each battery pack is used.

On the battery charger

On the battery charger

- Do not charge battery packs other than an NP-BK type battery pack in the battery charger supplied with the camera. Batteries other than the specified kind may leak, overheat, or explode if you attempt to charge them, posing a risk of injury from electrocution and burns.
- Remove the charged battery pack from the battery charger. If you leave the charged battery pack in the charger, battery life may be shortened.
- The CHARGE lamp of the supplied battery charger flashes in either way:

– Fast flashing: Turns the light on and off repeatedly at the interval of 0.15 seconds.

– Slow flashing: Turns the light on and off repeatedly at the interval of 1.5 seconds. (BC-CSKA only)

- When the CHARGE lamp flashes fast, remove the battery pack being charged, and then insert the same battery pack into the battery charger securely again.
 When the CHARGE lamp flashes fast again, this may indicate a battery error or that a battery pack other than the specified type has been inserted. Check that the battery pack is the specified type.
 If the battery pack is the specified type, remove the battery pack, replace it with a new one or another one and check if the battery charger operates correctly. If the battery charger operates correctly, a battery error may have occurred.
- When the CHARGE lamp flashes slowly, it indicates that the battery charger stops charging temporarily on standby. The battery charger stops charging and enters the standby status automatically when the temperature is outside of the recommended operating temperature. When the temperature gets back within the appropriate range, the battery charger resumes charging and the CHARGE lamp lights up again. We recommend charging the battery pack in an ambient temperature of between 10°C to 30°C(50°F to 86°F). (BC-CSKA only)

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Additional information on this product and answers to frequently asked questions can be found at our Customer Support Website.

http://www.sony.net/